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The Use of the Geometric Mean

By

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It appears from an examination of the treatment of the geometric mean in some of the popular text-books on statistical methods that there is a good deal of doubt in the minds of even our experts as to its true nature and usefulness. The defect was realised by the writer a few years ago the first time he tried to explain its use to a class of college juniors. To illustrate how the geometric mean may be employed for the analysis of frequency distributions he attempted to pick out a few examples of the same from the current text-books. Several texts consulted failed to elucidate the problem; many make no mention of this aspect of the geometric mean, while others merely give its definition. Some texts give illustrations which are valid,[1] while one at least gives a misleading and inapt illustration.[2] These authors are professed authorities on the subject the latter being particularly famous for the application of the geometric mean to framing the Index of the Physical Volume of Production. It is the object of this note to correct or interpret properly some of the misleading statements the writer came across in this study of the treatment of the use of the geometric mean in the various texts available to him (about 20 in number). It is surprising that such confusion should exist even now.

1. For instance, Crum and Patton, An Introduction to the methods of Economic Statistics; Secrist, An Introduction to Statistical Methods; Mills, Statistical Methods.
2. Day, Statistical Analysis, 1930: Table 43, p. 141.

The geometric mean is one of the less frequently used averages. It is the nth root of the product of the n factors. Its calculation is facilitated by the use of logarithms which consists merely of determining the arithmetic mean of the logarithms of each item or number in the series. The quotient thus obtained is the logarithm of the geometric mean. When a frequency distribution is given, the geometric mean is equal to

$$\sqrt[N]{X_1^{f_1} . X_2^{f_2} \;.\;.\;.\;.\; X_n^{f_n}} ,$$

where $f_1, f_2, \ldots\ldots f_n$ are the class-frequencies, $X_1, X_2, \ldots\ldots X_n$ the corresponding class-marks and $N = f_1 + f_2 + \ldots\ldots + f_n$.

Or $\log(G.M) = 1/N[f_1 \log X_1 + f_2 \log X_2 + \ldots\ldots + f_n \log X_n]$.

Comparing this with the method of calculating the arithmetic mean it is clear that the calculation of the geometric mean is reduced to the calculation of the arithmetic mean of the logarithms of the numbers. The geometric mean is simply the antilogarithm of this arithmetic mean.

From this mode of computation, West remarks that "Each property of the arithmetic mean, has a corresponding property for the geometric mean, because the logarithm of the geometric mean is the arithmetic mean of the logarithms of the *deviations*.[3] From this logarithmic correspondence all the properties of the geometric mean can be derived from those of the arithmetic mean. It is apparent, for instance, that the geometric mean applies to a series of *deviations*[3] multiplied together in a way exactly parallel to that of the arithmetic mean and a series of terms to be added. Other parallels are, a chain of relative prices, and series of price increases; interpolation on the assumption of a uniform rate and of a uniform increase; compound interest and simple interest."[4] The choice of the word "deviations" in this connection is not very happy. Ordinarily the "deviation" of a value of the variable x is taken from an arbitrary origin A and is $(x - A)$. West does not use the word in this sense; he does not mention either the special sense in which the word is used. Yule brings out the distinction very clearly in the following:[5] "The general use of the geometric

3. Italics mine.
4. C. J. West, Introduction to Mathematical Statistics, Ch. IV, p. 36.
5. Yule, Introduction to the Theory of Statistics, Chap. VII, Art. 26, p. 127.

mean has been suggested on another ground, namely, that the magnitudes of deviations appear, as a rule, to be dependent in some degree on the magnitude of the average . . . . Hence, it is argued, *variations in such cases should be measured rather by their ratio to, than their difference from, the average;*[3] and if this is done, the geometric mean is the natural average to use. If deviations be measured in this way, a deviation G/r will be regarded as the equivalent of a deviation. $r.G$, instead of a deviation $-x$ as the equivalent of a deviation $+x$." He just mentions the term "relative deviation" in this connection; Davies and Crowder use the term "ratio deviation."[6] It is in this very special sense that the word "deviations" is used by West in the passage cited.

He gives an example of the use of the geometric mean. "Let the price of a certain article for each year from 1910 to 1915 be expressed *as a per cent of that of the preceding year as follows*[3] (assuming 100 for the 1910 prices) 100, 105, 118, 109, 102, 115. The percent increase from 1910 to 1915 is obtained by multiplying together the five percents and is approximately 1.58.[7] What uniform percent of increase will give the same percent of increase of 1915 over 1910 ?" The answer obtained is 1.096. "Each of the unequal increases in the series may therefore be replaced by the percent 1.096 and still give the same product." Kent tries to adopt this example for use in his book and in doing so misses the point and makes a grievous mistake. "To illustrate, suppose that the price of a certain article for the year 1913 is expressed as 100% and that the prices for the five succeeding years expressed *as percents of the* 1913 *price*[3] are 105, 118, 109, 102 and 115 respectively. The percentage of increase from 1913 to 1918 may then be obtained by multiplying together the 5 percents which gives approximately 1.58. Suppose now that it is desired to know what uniform annual percentage of increase will give the same percentage of increase of the 1918 price over that of 1913 . . . . That is the uneven increases in the foregoing series may each be replaced by 1.096 to obtain the same percentage of increase for the year 1918. This means that the average annual rate of increase in prices for the five-year period has been 9.6%.[8]" The answer 9.6% is correct only if the prices

6. Davies and Crowder, Methods of Statistical Analysis, p. 38.

7. There is a confusion in the use of the word "increase" as there is in the use of the word "deviations". The price changes relatively from 100 to 158; there is therefore an increase of 58%. See Day's example below. Same is true of the word "per cent".

8. Kent, Elements of Statistics, Sec. 40, p. 53.

are expressed as link-relatives and not when they are expressed as relatives with respect to a single base-year. The problem as it is given does not have any significance.

Coming now to the computation of the geometric mean when the variable is given as a frequency-distribution Day gives an illustration in Table 43.

Increases in value of Products of Individual Industries during Single Intercensal Period.

Percentage increase (nearest 10%)	Number of Industries.	Logarithm of mid-value.	Logarithm times frequency.
10	37	1·0000	37·0000
20	105	1·3010	136·6050
30	143	1·4770	211·2110
40	102	1·6021	163·4142
50	96	1·6991	163·1136
60	81	1·7782	144·0342
70	69	1·8451	127·3119
80	54	1·9030	102·7620
90	42	1·9541	82·0722
100	36	2·0000	72·0000
110	31	2·0414	63·2834
120	23	2·0792	47·8216
130	18	2·1139	38·0502
140	9	2·1461	19·3149
150	4	2·1761	8·7044
160	2	2·2041	4·4082
170	2	2·2304	4·4608
180	1	2·2553	2·2553
Total	855		1427·8229

$$\log Mg = \frac{1427\cdot8229}{855} = 1\cdot6699 \ \therefore Mg = 46\cdot8\%$$

I do not think the table makes out that out of 855 industries, there were 37 in which the values of the products at the end of the period were only 10% of what they were at the beginning of the period.[9] It would mean then that out of 855 industries as many as 750 of them produced materials of lesser value which would hardly be true of the period to which the data are likely to relate.[10] It seems to me, the calculation

9. Some may have a value as low as 5% as the percentage is given to the nearest 10.

10. The period 1910-20 to which probably the data relate was one of increasing prices and great industrial advance in the United States.

of the geometric mean as given in the table would be correct only on this interpretation of it. Then it may be necessary to alter the heading of the table and the caption in the first column. If I understand the table aright, it means that out of 855 industries investigated, there were 37 in which the values of the products went up from 100 to 110, 105 in which they went up from 100 to 120 and so on; the problem is what percentage variation would represent adequately these different rates. The computation will then be somewhat as follows:

Variation in Value of Products of Individual Industries during Single Intercensal Period.

Value at the end of the period expressed as a per cent of the value at the beginning of the period.	No. of Industries.	Logarithm of midvalue.	(Logarithm−2) times frequency.
110	37	2·04139	1·53143
120	105	2·07918	8·31390
130	143	2·11394	16·28542
140	102	2·14613	14·90526
150	96	2·17609	16·90464
160	81	2·20412	16·53372
170	69	2·23045	15·90105
180	54	2·25527	13·78458
190	42	2·27875	11·70750
200	36	2·30103	10·83708
210	31	2·32222	9·98882
220	23	2·34242	7·87566
230	18	2·36173	6·51114
240	9	2·38021	3·42189
250	4	2·39794	1·59176
260	2	2·41497	0·82994
270	2	2·43136	0·86272
280	1	2·44716	0·44716
Total	855		158·23367

$$\log Mg = 2 + \frac{158\cdot23367}{855} = 2\cdot185069 \quad \therefore Mg = 153\cdot13\%.$$

which shows an increase of 53·13%.

I am drawing attention to this as Day's book is often referred to by other authors[11] and this point seems to have escaped the attention of at least two of the reviewers.

11. See, for instance, Harper, Elements of Practical Statistics, p. 110, "For a discussion of the uses and applications of the geometric and harmonic means see E. E. Day, Statistical Analysis, Ch. X."

In general, an average may be used in two fundamentally different ways: (1) as a substitute for the variable in a mathematical calculation; (2) as a summary characterisation of the variable expressing its typical size. The geometric mean is employed as a substitutional or an abstract average in lieu of the variable items in the calculation of a *product* derived from the successive multiplication of the items of the variable. The first example illustrates this use of the geometric mean. Other illustrations may be found in problems on investment, growth of population, etc. The logical extension of this method is to interpolate or extrapolate in historical or quantitative functional series in which the quantities increase in each interval by a uniform percentage of the value at the beginning of the interval. This usage anticipates the finding of trend lines.

The second use of the geometric mean is an actual attempt to summarise divergent tendencies as an average is supposed to do and is necessary if it is desired to combine two or more series. It is related to the preceding in that the ratio concept is fundamental. When different items vary at different rates during a period it is necessary to find a single characteristic figure which would typify the different rates of change. This is exemplified in the second illustration of the variation in the value of products of individual industries. When 37 industries produce 10% more worth of goods, 105, 20% more worth of goods and so on one may say that on the average there has been an increase of about 53% in the value of the goods produced, in so far as it is possible to express these divergent tendencies by a single number.[12] The properties of the geometric mean render it in some respects a peculiarly convenient form of average in dealing with ratios e.g., index-numbers. It tends to reduce the effects of extremely large variates and to emphasise the small variates.[13] Edgeworth emphasised the fact, that price dispersion upward always or usually exceeds the price dispersion downward. There is no limit to the former, but the latter is limited by zero. Statistical tests show clearly this asymmetry of dispersion. From this fact it has been argued that the best average should be one from which large deviations above it count no more than small deviations below it. This condition, whether good or ill, is not met by arithmetical averages, but is met by the geometric average." Index-numbers computed by taking the arithmetic mean of item-prices are not reversible; but an average in the form of a geometric mean avoids this non-reversibility.

12. If the arithmetic mean is taken as the average the typical increase is 56·4%.

13. Irving Fisher, Purchasing power of money, p. 425-6.

It has been remarked that an intermediate step in the process of computing the geometric mean is the finding of the mean of the logarithms of the original variates. This implies that some of the peculiar mathematical properties of the mean can be extended, with appropriate modifications, to the geometric average. If a distribution takes the simplest possible form when relative deviations are regarded as equivalents, the frequency of deviations between G/m_1 and G/m_2 will be equal to the frequency of deviations between $G.m_2$ and $G.m_1$. The frequency curve will then be symmetrical round log G if plotted to log x as base. In practice very many of the data of the social sciences give a skewed frequency distribution approaching the normal form. If the skewness is positive the distribution when plotted on a horizontal logarithmic scale may give a normal distribution. The original distribution is then said to be a logarithmic normal distribution. If it does not it will at least approach the normal distribution much more closely now and the arithmetic mean, median and mode of this distribution would give the logarithmic mean, logarithmic median and logarithmic mode.[14] " The theory of such a distribution has been discussed by more than one author. The general applicability of the assumptions made does not however appear to have been very widely tested, and the reasons assigned have not sufficed to bring the geometric mean into common use. It may be noted that as the geometric mean is always less than the arithmetic mean, the fundamental assumption which would justify the use of the former clearly does not hold where the mode is greater than the arithmetic mean." (Yule 1911). The logarithmic curve of distribution however has been studied in recent years by G. R. Davies and others.[15] A relatively large number of the distributions tabulated in statistical work, covering such diverse subjects as mental tests, incomes, housing conditions, mortality rates, pulse beats, etc., " form skewed curves approximating the Gaussian type when re-tabulated or redrawn to a logarithmic value scale. Such distributions should be measured about the geometric mean (or median) which is theoretically identical with the mode of the revised symmetrical figure. Deviations should be measured in units of the Standard-Deviation Ratio, which is the antilogarithm of the Standard-Deviation as computed from the logarithms

14. See Czuber: Die Statistichen Forschungsmethoden, Art. 48, pp. 81-85, for examples taken from Fechner, Kollektivmasslchre.

15. G. R. Davies: The logarithmic curve of distribution, "Journal of the American Statistical Association," Dec. 1925.

G. R. Davies: The Analysis of Frequency Distribution, "Journal of the American Statistical Association", Dec. 1929.

Davies and Crowder, Methods of Statistical Analysis, Wiley & Sons.

of the class-marks. The positions of the mode and the arithmetic mean of the skewed curve are functions of the standard-deviation ratio. Logarithmic normal curves may be fitted to these skew curves either by computation or by graphic methods. Such curve-fitting may appropriately be used in many fields of statistical work as a means of checking the type of distribution and the adequacy of a given sample."

In cases where the distribution is negatively skewed, the logarithmic frequency distribution does not appear to give better results than the original one does, but by reading the value scale back from some large value of the variable it is possible to construct a frequency distribution to which the logarithmic normal curve may be readily fitted.

Bias and Dispersion in Index Numbers

By

S. Subramanian

(Annamalai University)

1. Professor Irving Fisher has considered in detail[1] the effect of the dispersion in the data of the price or quantity relatives on the bias due to type and weight in index formulae. Measuring dispersion in a peculiar way he has arrived at the conclusion that bias increases with it. A close study of his reasoning has suggested to me the problem of finding out whether a similar relation can be established between them in whatever manner dispersion is measured. If dispersion is taken to be represented by the standard deviation of the distribution it is found that no such relation exists between it and the bias of the index formula taken. The purpose of this note being merely to point out that bias does not always increase with dispersion, it will suffice to argue the case of the simple arithmetic mean formula.

2. Let $x_1, x_2 \; . \; . \; . \; x_n$ be the n relatives to be averaged. Then if bias is represented by B,

$$\mathrm{B} = \left(\frac{x_1 + x_2 + \; . \; . + x_n}{n} \right) \left(\frac{1/x_1 + 1/x_2 + \; . \; . + 1/x_n}{n} \right) - 1 \; ;$$

that is,

$$\begin{aligned} n^2 . \mathrm{B} &= (x_1 + x_2 + \; . \; . + x_n)\,(1/x_1 + 1/x_2 + \; . \; . + 1/x_n) - n^2 \\ &= (x_1/x_2 + x_2/x_1) + \; . \; . \; {}_n c_2 \text{ groups} - (n^2 - n) \\ &= (x_1/x_2 + x_2/x_1 - 2) + \; . \; . \; {}_n c_2 \text{ groups of terms.} \\ &= \frac{1}{x_1 x_2} (x_1 - x_2)^2 + \; . \; . \; {}_n c_2 \text{ terms.} \end{aligned}$$

Again, if σ denotes the standard deviation of the distribution.

$$\sigma^2 = \frac{x_1{}^2 + x_2{}^2 + \; . \; . + x_n{}^2}{n} - \left(\frac{x_1 + x_2 + \; . \; . + x_n}{n} \right)^2 ;$$

1. Fisher: *The Making of Index Numbers*, pp. 108-9, 387-95.

that is,

$$n^2 . \sigma^2 = n(x_1^2 + x_2^2 + \ldots + x_n^2) - (x_1 + x_2 + \ldots + x_n)^2$$
$$= (x_1 - x_2)^2 + \ldots {}_nc_2 \text{ terms.}$$

Treating B and σ as differentiable functions of $x_1, x_2, \ldots x_n$, we may write

$$n^2 . dB = (x_2 dx_1 - x_1 dx_2)\left(\frac{1}{x_2^2} - \frac{1}{x_1^2}\right) + \ldots$$

and $$n^2 . \sigma . d\sigma = (x_1 - x_2)(dx_1 - dx_2) + \ldots .$$

where dB, $d\sigma$ denote the variations of B and σ due to changes dx_1, dx_2, . . dx_n in the values of the x's.

3. The question now to be answered is: *is dB always of the same sign as dσ?* Without loss of generality it may be assumed that $x_1, x_2, \ldots x_n$ are in descending order of magnitude. The signs of dB $d\sigma$ depend to a large extent on the nature of the dx's. Certain special cases will do for our purpose.

(*a*) Let $dx_1, dx_2, \ldots dx_n$ be all positive and in descending order of magnitude. Then $d\sigma$ is positive but dB requires further investigation. If $(x_r dx_s - x_s dx_r)$ and $(1/x_r^2 - 1/x_s^2)$ are of the same sign for all possible values of r and s, then dB will be positive; that is, if $x_r < x_s$ and $dx_r/x_r < dx_s/x_s$, dB will be positive. In other words, if the larger relatives increase at relatively faster rates, the bias in the formula will become greater. However this condition is not a necessary one.

(*b*) Again let $dx_1, dx_2, \ldots dx_n$ be positive and in descending order of magnitude; now if $dx_1/x_1, dx_2/x_2, \ldots dx_n/x_n$ are in ascending order dB will be negative; that is, *even if the variation in an x be greater the greater that x is, the bias will decrease nevertheless provided that the larger x's increase at relatively slower rates.*

(c) In the other cases no general rule can be formulated; and each case has to be discussed separately.

When some or all of the dx's are negative a similar analysis is possible.

4. The consideration of the case of two relatives may render the argument clearer.

Suppose x_1 and x_2 are the only relatives to be averaged of which x_1 is the greater one. Then

$$4B = (x_1 - x_2)^2 / x_1 x_2$$

$$\text{and } 4\sigma^2 = (x_1 - x_2)^2 \quad \textit{i.e. } 2\sigma = x_1 - x_2.$$

$$\text{Now } 4dB = (x_2 dx_1 - x_1 dx_2)\,(1/x_2^2 - 1/x_1^2)$$

$$= [x_2(dx_2 + 2d\sigma) - (x_2 + 2\sigma)\,dx_2] \times (\text{a positive quantity});$$

$$\text{that is, } 2dB = (x_2 d\sigma - \sigma dx_2) \times (\text{a positive quantity}).$$

Even if $d\sigma$ is positive, dB will be negative when $d\sigma/\sigma < dx_2/x_2$; that is, σ does not increase relatively at so fast a rate as x_2 does.

Let x_1 be 10 and x_2 5; let them increase to 16 and 9 respectively. Then

bias in the first case	$= \frac{1}{4} \times \frac{1}{50} \times 25$	$= \frac{1}{8}$;
standard deviation	$= \frac{1}{2} \times 5$	$= 2\frac{1}{2}$;
bias in the second case	$= \frac{1}{4} \times \frac{1}{144} \times 49$	$< \frac{1}{8}$;
standard deviation	$= \frac{1}{2} \times 7$	$> 2\frac{1}{2}$.

Thus bias has decreased when standard deviation has increased.

5. Hence it may be concluded that *it is not true as a general proposition that bias increases with dispersion.*

Utility and Progressive Taxation

By

S. Subramanian
(Annamalai University)

The Law of Diminishing Utility was for a long time believed to lead automatically to progression in taxation. Cohen Stuart pointed out, however, that progression would result as a rule only if the utility curves were assumed to have greater curvature than the rectangular hyperbola. He made an attempt, moreover, to determine the nature of the progression arising out of a given law of utility. He investigated a few particular cases and came to some conclusions which he thought were of a general character. Wicksell and Edgeworth supported him but Seligman and others disagreed from them. It was left for Kovero to analyse Cohen Stuart's arguments and point out their defects.[1] Kovero does not stop here. He examines the twin dogmas of modern public finance, namely, that the progression must be regressive and that it must ultimately become a proportionality. For this purpose he postulates various particular forms, five in all, for the utility curve and infers from his calculations that both the dogmas are defective. He goes further and points out a few properties of the progression introduced in taxation by the law of diminishing utility. Except in one or two cases to be pointed out later, his results go a long way in solving the problem of progression in taxation. However, his method is open to the criticism that it considers only special cases and draws general conclusions from them. To meet this criticism and to show that Kovero's results are substantially true in all cases, I take the general form of the utility curve as the starting point. The exponential curve is not suitable for this purpose.[2] Equality of sacrifice is assumed throughout; that is, the amount of utility that is lost on account of the tax is constant from man to man.

2. Wicksell gives

$$y = \frac{c}{x^{1+n}}.$$

1. For details reference may be made to Ilm Kovero's "Some Views on Marginal Utility and the Theory of Taxation."
2. For reasons, see Kovero, p. 85.

where n is any positive quantity, c is some constant, and x is the income or property diminished by the minimum of subsistence, m

Now s is the sacrifice that each one is to make;

$$s = \int_{x-t}^{x} \frac{c\,dx}{x^{1+n}} \text{ where } t \text{ is the amount of tax paid.}$$

Then

$$s = [(x-t)^{-n} - x^{-n}]\, c/n$$

Putting $ns/c = \lambda$, we may write

$$\lambda = (x-t)^{-n} - x^{-n}$$

i.e., $\lambda x^n = (1 - t/x)^{-n} - 1$

or $1 - t/x = (1 + \lambda x^n)^{-1/n}$

Now if $t/x = \text{P}$, $1 - \text{P} = (1 + \lambda x^n)^{-1/n}$ (A)

3. The question whether progression can change into proportionality may now be answered. First let either m be zero in which case P will be the fraction of the total income taken away as tax or, if it is necessary to retain the minimum of subsistence, let us confine ourselves to the ratio that the tax bears to the taxable income, that is, the total income diminished by the minimum of subsistence.

Differentiating both sides of equation (A) with respect to x, we have

$$-\text{P}' = -\lambda x^{n-1}(1 + \lambda x^n)^{-(1/n)-1}$$

$$\textit{i.e.} \quad \text{P}' = (1 - \text{P})^{n+1} \lambda x^{n-1} \qquad \text{(B)}$$

Now P′ can vanish only when either $\text{P} = 1$ or $\lambda = 0$. $\text{P} = 1$ signifies that taxation should level down all incomes to the minimum of subsistence and it is too impracticable a solution to be considered. $\lambda = 0$ means, either that taxation does not entail any sacrifice or that the utility curve is a rectangular hyperbola. The first is impossible and the other solution will make

$$s = \int_{x-t}^{x} \frac{c}{x}\,dx = c \log \frac{x}{x-t}$$

$$= -c \log(1 - \text{P})$$

i.e., $e^{-s/c} = 1 - \text{P}$

or $\text{P} = 1 - e^{-s/c} = \text{const.}$

Thus in this case there is no progression at all and it is proportionality throughout.

In all other cases it will be easily seen that P′ will be positive and will never vanish. Therefore we may conclude that *progression can never change into proportionality.*

4. The problem of the nature of the progression introduced remains to be solved.

Equation (B) is

$$P' = (1 - P)^{n+1} \lambda x^{n-1}$$

By logarithmic differentiation with respect to x

$$\frac{P''}{P'} = -\frac{n+1}{1-P}P' + \frac{n-1}{x}$$

$$= -(n+1)(1-P)^{n} \lambda x^{n-1} + \frac{n-1}{x}$$

On simplification this leads to

$$P'' = \frac{P'(1-P)^{n}}{x}(n - 1 - 2\lambda x^{n}) \tag{C}$$

It may be remembered that P′, 1—P, x are all positive. Hence P″ will change sign at the value of x given by $n\text{-}1 = 2\lambda x^{n}$. λ being given and n being greater than unity, one positive value for x can alays be found and only one. It is clear in this connection that P″ will change from positive to negative as x increases. Hence it may be concluded that *given the shape of the utility curve there exists a particular size of the income at which taxation will cease to be progressively progressive and will become regressively progressive.* This turning point can be easily calculated but whether it lies within reasonable limits or not depends on the nature of the utility curve.

If however n is a positive proper fraction, P″ will always be negative. This is true even when $n = 1$. In these cases the tax will be regressively progressive right from the very beginning. It is probable that the erroneous notion that the law of diminishing utility gives rise to taxation which is exclusively regressively progressive, is due to the fact that values for n greater than unity were not investigated properly. A few particular cases where $n > 1$ have been exhaustively discussed by Kovero. But the theoretical method shows more convincingly than his *that it*

does not follow from the law of utility automatically that taxation should be regressively progressive. However, it must be said that progressively progressive taxation cannot persist all through.

5. We may now pass on to consider two inferences drawn by Kovero from his own analysis and to see how far they are correct. He says: "The more rapidly the utility is assumed to diminish, the more pronounced seems the progressive character of the progression and the confiscatory tendency of the taxation."

We have with the usual notation,

$$P' = (1 - P)^{n+1} \lambda x^{n-1}$$

Taking logarithms and differentiating with respect to n,

$$\frac{1}{P'}\frac{dP'}{dn} = \log(1 - P) - \frac{n+1}{1-P}\frac{dP}{dn} + \frac{1}{n} + \log x$$

Similarly from $(1 - P)^{-n} = 1 + \lambda x^n$, we have

$$\frac{n}{1-P}\frac{dP}{dn} - \log(1 - P) = \frac{\lambda/n x^n + \lambda x^n \log x}{1 + \lambda x^n}$$

Substitution of this in the previous equation gives

$$\frac{1}{P'}\frac{dP'}{dn} = \frac{1}{n(1 + \lambda x^n)} + \left(1 - \frac{n+1}{n}\,\frac{\lambda x^n}{1 + \lambda x^n}\right) \log^x$$

$$+ \frac{1}{n^2}\left(\log(1 + \lambda x^n) - \frac{\lambda x^n}{1 + \lambda x^n}\right) \qquad \text{(D)}$$

The first term in the right hand side of equation (D) is positive. The third term is of the form $\log(1 + z) - \frac{z}{1+z}$ which is always positive.[3]

3. $$e^{z/1+z} = 1 + \frac{z}{1+z} + \frac{z^2}{(1+z)^2}\,\frac{1}{2!} + \ldots < 1 + \frac{z}{1+z} + \frac{z^2}{(1+z)^2} + \ldots$$

$$< \frac{1}{1 - \frac{z}{1+z}} \text{ i.e., } < 1 + z \cdot \text{ hence } \frac{z}{1+z} < \log(1 + z).$$

The second term of the same sign as

$$1 - \frac{n+1}{n} \frac{\lambda x^n}{1+\lambda x^n} \text{; that is, as } \frac{n - \lambda x^n}{n(1+\lambda x^n)}$$

This will be positive so long as $\lambda x^n < n$. This condition is satisfied when the taxation remains progressively progressive but it is by no means a necessary condition. The term in question may be positive even when regressive progression is introduced. It will become negative when $\lambda x^n > n$.

However when the tax is progressively progressive since P′ is positive for all values of n, dP'/dn will be positive ;[4] that is, the greater n is, the more marked is the progressiveness of the progression.

6. The second inference, that is, that when the tax becomes regressively progressive taxation assumes a confiscatory character, is true only under special conditions. Much depends, moreover, on the interpretation of the word *confiscatory*.

The increase in tax, when the income increases by dx, being dt, we may write

$$dx - dt = dx - d(\mathrm{P}x)$$
$$= (1 - \mathrm{P})\,dx - x\,d\mathrm{P},$$

$$\textit{i.e.,}\quad 1 - \frac{dt}{dx} = 1 - \mathrm{P} - x\mathrm{P}'.$$

Since $\mathrm{P}' = (1 - \mathrm{P})^{n+1} . \lambda x^{n-1}$

$$1 - \frac{dt}{dx} = (1 - \mathrm{P}) - \lambda x^n (1 - \mathrm{P})^{n+1}$$

$$= (1 - \mathrm{P}) \left(1 - \frac{1 + \lambda x^n}{\lambda x^n} \right)$$

$$= \frac{1 - \mathrm{P}}{1 + \lambda x^n} = (1 + \lambda x^n)^{-(1/n)-1}$$

4. In this case $\lambda x^n < \frac{n-1}{2}$; hence $n - \lambda x^n > n - \frac{n-1}{2}$ i.e., $> \frac{n+1}{2}$
Thus $n - \lambda x^n$ is positive.

Thus if $1 - dt/dx$ is to vanish, either x or λ should become infinite. Assuming x to be finite as we should, λ has to be infinite. As λ is the sacrifice function, we get the result that according to the law of diminishing utility, *confiscation leads to the sacrifice of infinite utility.* But, to come to the point, it is clear that no relation exists between the change-over from progressive progression to regressive progression and the assumption of a confiscatory character by the tax. For, given the exact significance of confiscation, we can find a value for x answering to this quite independent of whether $2\lambda x_n > n - 1$ or not. For instance, if confiscation means taking away not less than three-fourths of the income x could be found from

$$1/4 = (1 + \lambda x^n)^{-(1/n)-1}$$

i.e., $$1 + \lambda x^n = 4^{n/n+1}$$

This value of x will be smaller than that given by $2\lambda x^n = n - 1$, when $4^{n/n+1}$ is less than $\dfrac{n+1}{2}$.[5] Kovero has been led to believe that a relation may exist, probably because he has not tried values of n beyond 5/2.

7. If the ratio the tax bears to the total income (undiminished by the minimum of subsistence) is required, we have to investigate the variations in the value of Q where $Q = \dfrac{Px}{x + m}$. As the main results will be generally similar, the details have not been gone into in this paper and have been left to the interested reader to work for himself.

5. For instance consider any case where $n > 7$.

Diamagnetism and Change of State

By

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I. INTRODUCTION.

In a series of classical investigations, Pascal[1] determined the magnetic susceptibility of several hundreds of chemical compounds. Generally he found that the molecular susceptibility of a substance could be represented by

$$\chi_M = \Sigma n_A \chi_A + \lambda$$

where n_A is the number of atoms in the molecule having a susceptibility χ_A and λ is a constitutive constant depending on the nature of the linkages between the atoms. In this manner, Pascal determined the susceptibility constants for several elements and groups of elements and also the constitutive constants for various types of linkages.

Langevin[2] showed that in the case of mononuclear systems having spherical symmetry, the gram atomic susceptibility χ_A is given by

$$\chi_A = -\frac{e^2 L}{6mc^2} \sum_N \overline{r^2}$$

where L is the Avogadro number, the summation of the mean radius square being taken over the N electrons in the atom. The value of $\overline{r^2}$ has been estimated by Van Vleck[3] and Pauling[4] on the basis of quantum mechanics and by Stoner[5] who used the Hartree's space charge distribution method.[6] Slater[7] in 1930 followed the work of

1. Stoner, Magnetism and Matter, p. 469.
2. Ann. d. Chim. et Phys., 5, 70, 1905.
3. Phys. Rev., 31, 587, 1928.
4. Proc. Roy. Soc., 114, 181, 1927.
5. Proc. Leeds Phil. Soc., 1, 484, 1929.
6. Proc. Camb. Phil. Soc., 24, 89 and 111, 1928.
7. Phys. Rev., 36, 58, 1930.

Zener[8] and enunciated some simple rules for calculating the screening constants for the various extranuclear electron groups and obtained expressions for the atomic susceptibility. These calculations were somewhat modified by Angus[9] who took into account the small difference in the screening constants of the s and p electrons. Better agreement with experiment was obtained in this manner.

Kido[10] found on comparing the magnetic susceptibility of ions theoretically worked out with the experimental values, a difference which depended on the number of valency of the ions. According to him,

$$\chi_{ion} = \chi_d + \chi_p$$

where χ_d is the calculated diamagnetic term and χ_p the paramagnetic term which increases as the number of valency of the ions increases. By using the values of ionic susceptibility, he found that the molecular susceptibility of inorganic compounds agreed with the values calculated by assuming the additive law. Kido suggests that the paramagnetic term, which is independent of temperature, is due to the possible distortion of the electron orbit in ions and identifies it with the first term in Van Vleck's equation,[11]

$$\chi_a = \frac{2}{3} N \sum_{n'(n' \neq n)} \frac{|m_o(n' : n)|^2}{h\nu(n' : n)} - \frac{Ne^2}{6\,mc^2} \Sigma \overline{r^2}$$

These considerations suggest that when a change of state takes place there should be no alteration in the diamagnetic susceptibility of the substance.

2. THE INFLUENCE OF LIQUEFACTION.

The first comprehensive investigation on the influence of liquefaction on the diamagnetism of organic compounds was carried out by Oxley.[12] He measured the susceptibilities of various substances over ranges of temperature from —180°C to 200°C. Aliphatic compounds in general showed small changes while in the case of aromatics large changes (as much as 5%) were observed. Nitrobenzene gave a dec-

8. Phys. Rev., 36, 51, 1930.
9. Proc. Roy. Soc., 136, 569, 1932.
10. Sc. Rep. Tohoku Imp. Univ., 22, 835, 1933.
11. Theory of Electric and magnetic susceptibilities, p. 122, 1932.
12. Phil. Trans. Roy. Soc., 214, 109, 1914; 215, 79, 1915.

rease of susceptibility of the order of 13% on solidification. Benzoyl chloride and phenyl hydrozene showed a decrease on melting in contrast to the other organic compounds. Although the investigations of Krishnan, Guha and Banerjee[13] suggest changes of a smaller order, the fact remains that melting is accompanied in most cases, by an increase in susceptibility and in a few cases either a decrease or no change at all.

More recently Cabrera and Fahlenbrach[14] have studied the change of susceptibility on freezing in relation to the dipole moment of the molecules concerned. They find that on plotting points between these quantities, a smooth curve can be drawn passing evenly through them. The evidence however, is not convincing. In the first place most of the organic substances studied by them have dipole moments less than 2×10^{-18} c.g.s. units. The change of molar susceptibility in all these cases is less than 1·18.* No definite relation can be obtained between ($\chi_{\text{liquid}} - \chi_{\text{solid}}$) and dipole moment on the bases of these results alone since the points plot themselves at random. Secondly if we consider the substances for which the dipole moments are above 2×10^{-18} c.g.s. units, Cabrera and Fahlenbrach have investigated five compounds and quoted the value for benzophenon obtained by Krishnan, Guha and Banerjee. It will be seen that the values for benzophenon and nitrobenzene alone are found to plot on the curve while the other four substances do not plot themselves smoothly on the curve. The real test of the theory proposed by Cabrera and Fahlenbrach must lie in the support given by these substances because of their high dipole moments. But here the conclusions fail clearly. It is therefore very doubtful if a relation between the dipole moment and the change of susceptibility on freezing really exists; at any rate the evidence presented is not conclusive.

Besides if dipole moment and the consequent interaction bring about a change in susceptibility, association must do the same. In fact a liquid may be considered to be a degenerate crystal and hence a progressive change must be noted as the degeneracy is carried further i.e. when the liquid is heated. The absence of such an effect and the fact that some compounds wherein the linkages are not strong do not show any sensible deviation from the additive law would suggest strongly that such electrostatic interactions do not play an important part in magnetic properties.

13. Phil. Trans. Roy. Soc., 231, 235, 1933.
14. Zeits. f. phys., 89, 682, 1934.
* In 10^{-6} units.

On the other hand, water and primary alcohols give a variation with temperature and hence belong definitely to a different group of substances as compared to the normally associated liquids like nitrobenzene and acetic acid. In the case of the former class of substances the molecules are polymerised, where polymerisation involves a definitely new structure bringing about new linkages as distinguished from association which is a body force due to electrostatic interaction. This view obtains additional support from the fact that Raman effect data distinguish the two considerably. Bhagavantam[15] has studied acetaldehyde and sulphur-trioxide in the polymerised and depolymerised states and it is seen that polymerisation gives *new lines* while association causes only *a shift in the frequency*. Water has been classed under association by him while I. R. Rao[16] thinks that it has a definite structure. The latter view seems to be favoured by the magnetic data. For, a calculation of the difference between the susceptibilities of (H_2O) and $(H_2O)_2$ was made from the number of such molecules present between the temperatures 20° and 40°C. The susceptibility values being known at the two temperatures, the susceptibility of the two kinds of molecules could easily be calculated. The difference is between $0{\cdot}05$ and $0{\cdot}1 \times 10^{-6}$ according as we choose the value of Auer[17] or of Cabrera and Fahlenbrach[18] for the variation of χ. Besides, Cabrera and Fahlenbrach have shown that at 120°C the susceptibility attains a steady value which keeps constant at higher temperatures. This means therefore that the depolymerisation of the complex water molecules is responsible for the observed difference in susceptibility.†

It would appear therefore that in the case of melting, a change more fundamental than a mere difference in packing is taking place. It is probable that there is a polymer present in the solid state which decomposes on fusion.

Such a sudden fall in the number of molecules present as definite polymer on liquefaction is not quite unreasonable since it is found that, in the case of water the percentage decrease on melting of the complex $(H_2O)_3$ is about 34% by weight while the increase in

15. Ind. Jour. Phys., 5, 49, 1930.
16. Phil. Mag., 17, 116 and 1113, 1934.
17. Ann. der phys., 18, 593, 1933.
18. Zeits. f. phys., 82, 759, 1933.

† Attention may also be drawn to the investigation of Segrè. (Accad. Lincei. Atti, 13, 929, 1931). He suggests definitely that the band with a separation of 140 cm.$^{-1}$ is due to oscillations in the polymers of H_2O.

$(H_2O)_2$ is about 28%, and the single molecules about 9%. Such large changes are possible on fusion and it is very likely that water and the primary alcohols belong to a class for which the complete depolymerisation of the compounds is not brought about on fusion. It has been remarked by Dunstan and Thole[19] that the presence of a OH group usually gives a high value for viscosity probably because of polymerisation. It might mean that the OH group has a residual activity which binds more molecules to it by means of linkages which are stronger than those we have in other ordinary polymers. Hence if the polymer is disrupted on fusion, the susceptibility will increase and keep steady when there are no more linkages to be broken.[20]

3. EVIDENCE FROM RAMAN EFFECT DATA.

It is interesting to consider in this connection the investigations on the phenomenon of wings and the vibrational Raman effect in some substances in the crystalline and liquid states. Gross and Vuks[21] have brought out evidence from the Raman spectra of diphenyl ether and benzene to show that in these liquids the wings are not due entirely to the rotation of the molecules. They suggest that the continuous spectrum on either side of the Rayleigh line consists of two parts, the first part (within 20 cm^{-1}. of the Rayleigh line in the case of diphenyl ether) being due to the rotation of the molecule while the latter part is produced by slow vibrations, probably characteristic of the crystal lattice. On heating the liquid the first part shows an increased intensity while the latter part is unaffected. The second observation can also be inferred from the results of A. V. Rao,[22] and Sirkar and Maiti.[23]

On crystallisation, the inner part due to the rotation of the molecules disappears completely while the outer part is replaced by a few sharp lines on either side of the Rayleigh line. The other Raman lines in the spectrum do not undergo normally any change. It follows therefore that the so-called broadening of these sharp lines into a continuous spectrum on melting the crystal should be intimately connected with the destruction of the crystal lattice as the change of state occurs.

19. Hatscheck, the Viscosity of liquids, p. 110.
20. The subject matter of this paragraph was presented as part of the thesis submitted by the writer for his M.Sc. Degree to the Annamalai University in November 1934. Since then similar computations have been published by Sibaiya (Current Science 3, 421, 1935).
21. Nature, 135, 100 and 431, 1935.
22. Proc. Ind. Acad. Sci., 1, 274. 1934.
23. Ind. Jour. Phys., 9, 323, 1935.

Gross and Vuks ascribe the lines to vibrations characteristic of the crystal lattice. Bhagavantam[24] on the other hand is of opinion that in the crystal the oscillations are definitely quantised and they give rise to separate lines in the scattered light. According to him the quasi-crystalline arrangement in liquids gives rise to quasi-crystalline forces which in one class of liquids composed of heavy molecules hinder free rotation; and the imperfect quantisation of such oscillatory motions seems to account for the appearance of the wings at some distance from the Rayleigh line. On heating the liquid the molecules are free to rotate and the oscillatory motion passes over into complete rotation at sufficiently high temperatures. The idea of incomplete rotation is also connected with the optical anisotropy of the substance.

Such a picture seems to depart violently from the experimental results of Sirkar and Maiti and A. V. Rao. Rao's measurements were taken at 47°C and 100°C in the case of benzene while Sirkar and Maiti have investigated the temperature effect at 30°C and 210°C. There is evidence from light scattering[25] to show that even at temperatures of about 100°C the anisotropy of the induced polarisation field due to the surrounding molecules nearly vanishes. Hence one would expect the appearance of the wings to change considerably between 30° and 100°C, if the idea of hindered rotation is tenable. Sirkar and Maiti do not find any variation in the range from 30°C to 210°C and Gross and Vuks also observed the same result. Further if the sharp lines obtained with the crystals are due to the oscillations becoming definitely quantised, it is difficult to see how melting could bring about a sudden change in the appearance of the lines, which persists almost up to the critical temperature.

It seems that these phenomena could be explained if we assume (1) that the sharp lines are due to polymers in the crystal and (2) if the continuous spectrum is dependent on the molecule in question and quite independent of any effects that may arise from groups of molecules. This would suggest that the continuous spectrum is not the result of any broadcasting of the sharp lines on liquefaction as Gross and Vuks seem to suggest, because the appearance of the continuous spectrum seem to be almost simultaneous with melting and no intermediate stage has been discovered.

The change of susceptibility on melting appears to be of the order of 5% in the case of aromatics and much less in the case of aliphatic

24. Proc. Ind. Acad. Sci., 2, 86, 1935.
25. Ind. Jour. Phys., 3, 1, 1928.

compounds. Such large deviations in the case of the former class of compounds could not be explained by the theory of perfect quantisation in crystals and hindered rotation in liquids since the rotation of the molecules will not contribute to the magnetic susceptibility. As has been mentioned earlier a change more fundamental than a mere difference in packing takes place on melting.

That such polymers exist in ice seems to be justified by the investigations of Ramakrishna Rao.[26] In the case of iodic acid crystals Venkateswaran[27] has discovered a large number of low frequency oscillations which may be attributed to the influence of polymerised molecules. In solutions these lines are broader than in the solid. More investigations of the Raman spectra of substances in the crystalline and liquid states are necessary before definite pictures could be had regarding the origin of the low frequency lines observed by Gross and Vuks.

4. THE INFLUENCE OF VAPORISATION.

The change from liquid to vapour is a case of the same nature. If the liquid is polymerised in the liquid state, it will show a change in susceptibility as it is converted to vapour and the normal liquids will not show any difference in value. In the case of water for example, the value of the vapour will be just the same as that of the liquid at 120°C, since the polymers are all decomposed at that temperature.

Very little work has so far been done on the magnetic susceptibility of organic vapours. Vaidyanathan's experiments[28] indicate that in some liquids like benzene, carbon disulphide, pentane and hexane, there is considerable divergence between the liquid and vapour values. Sivaramakrishnan's careful measurements[29] by a new method developed in this laboratory[30] also gave a similar result in the case of benzene, (a molar susceptibility of $79{\cdot}6 \times 10^{-6}$ for the vapour and $54{\cdot}6 \times 10^{-6}$ for the liquid).

These apparent differences were due to the fact that in the calculation of the molar susceptibility of the vapours, it was assumed that the vapours obeyed Boyle's law and that the susceptibility of 22·41 litres of the saturated vapour at N. T. P. would give the molar susceptibility. This assumption is obviously untenable. The correct me-

26. Nature, 132, 480, 1933; also Proc. Roy. Soc., 145, 489, 1934.
27. Proc. Ind. Acad. Sci., 2, 119, 1935.
28. Ind. Jour. Phys., 2, 135, 1927.
29. Annamalai University Journal, 3, 48, 1934.
30. Proc. Phys. Soc., 46, 318, 1934.

thod after determining the volume susceptibility of the vapour would be to calculate the specific susceptibility of the vapour knowing the density of the vapour (available from tables) at the specified temperature and pressure; the molecular susceptibility can then be easily calculated.[31]

In the calculation it is assumed that the ratio between the ideal density and the actual density is the same both at the saturation vapour pressure and at pressures much lower in which range the actual determinations have been made.

On this assumption, the values of the density for different liquids at the experimental pressure and temperatures have been determined from graphs drawn from readings taken from the tables and these are entered in column (2) as actual density. The ideal density is calculated at the same temperature and pressure assuming that Boyle's law holds good and that the molecular volume at N. T. P. is 22·41 litres. The results obtained are entered in column (3).

On this basis we have recalculated Vaidyanathan's results and the corrected values are shown in the following table.

Substance.	pressure mms. of mercury.	Actual density* $\times 10^3$	Ideal density* $\times 10^3$	Molar susceptibility $\times 10^6$: Vaidyanathan, Method 1**	Vaidyanathan, Method 2*	Corrected, Method 1**	Corrected, 2*	+Liquid.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Carbon-disulphide	411·0	1·73	1·664	75	62·5	74·2	60·2	45
Benzene	109·8	0·57	0·454	83	74	64·5	59·3	56
N. Pentane	576·8	2·27	2·213	82	82	79·7	79·9	68
N. Hexane	171·8	0·84	0·787	89	96	82·9	90·0	80
Carbon tetra-chloride	134·0	1·10	1·097	79	77	75·3	76·8	70
Ethyl formate	278·0	1·20	1·095	50	55	45·7	50·2	53 & 45
Methyl Acetate	245·0	0·96	0·965	51	57	51·0	57·0	53
Ether	613·0	2·55	2·417	70	62	67·8	58·8	63
Methyl formate	675·0	2·17	2·157	38	—	37·8	—	33
Heptane	43·5	0·24	0·211	97	—	95·1	—	92

*Temperature 28°C. +Taken from Vaidyanathan ** Temperature 24·0°C.

31. A preliminary account was published in Nature, 134, 812, 1934.

A similar correction applied to Sivaramakrishnan's result for benzene vapour gives a molar susceptibility of $57 \cdot 1 \times 10^{-6}$ which is surprisingly near the value for the liquid ($54 \cdot 6 \times 10^{-6}$).

It will be seen that the corrected molecular susceptibilities agree more satisfactorily with the values for the liquid state. The only exception is carbon disulphide for which more accurate data are necessary particularly in view of the fact that Vaidyanathan's results by two methods differ by 20%.

5. SUMMARY AND CONCLUSIONS.

It is well known that many aromatic compounds give a decrease of magnetic susceptibility on solidification. It appears that in the case of melting a change more fundamental than a mere difference in packing is taking place. Evidence is brought forward to show that polymers present in the solid state decompose on fusion and hence give rise to the observed changes. Attention is drawn to the possibility of the sharp lines obtained by Gross and Vuks in solid benzene and di-phenyl ether being due to such polymers. The case of water is considered in the light of Raman effect data of Ramakrishna Rao.

The apparent differences between the susceptibilities of organic compounds in liquid and vapour states seem to disappear, if the density of the vapour is taken into account in the calculation of the molar susceptibility.

My thanks are due to Dr. S. Ramachandra Rao, for his keen interest in this work. I am also indebted to the authorities of the Annamalai University for the award of a studentship which has rendered this work possible.

A Note on *Cyclotopsis Subdiscoidea* Sowerby *

By

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I collected, about four years ago, a few shells of *Cyclotopsis subdiscoidea* Sowerby, and on referring to the volume on 'Land Operculates' in the *Fauna of India* for identification, found that Gude (4) had included the genus *Cyclotopsis* in the family of Cyclophoridae. An examination of the soft parts of a specimen obtained sometime later showed that the animal possesses the characters of Pomatiasidae (=Cyclostomatidae) and not Cyclophoridae. The presence of a deep longitudinal pedal groove, a single statolith in the statocyst and the structure of the reproductive system are characteristic of Pomatiasidae. I referred my observations to Dr. Baini Prashad, who also was surprised that Gude (4) should have classified *Cyclotopsis* under Cyclophoridae, while other authors like Kobelt, Möllendroff and Thiele classified it under *Pomatiasidae.* As our knowledge of the anatomy of the large number of interesting Land Operculates of India is extremely meagre, I undertook a complete examination of the anatomy of the few specimens that I was able to obtain; but, as *Cyclotopsis* shows a close resemblance in structure to *Pomatias* (= *Cyclostoma*) *elegans,* which was fully studied by Garnault (3), I give here an account of the important features only.

In distribution, the genus *Cyclotopsis,* according to Gude, is confined to India. Five species have been recorded, of which three are from South India and two from the Bombay Presidency. *Cyclotopsis Subdiscoidea* is recorded from South India only. The shells in my collection agree with the figures of the specimens in the British Museum as given by Gude (4).

The body forms a more or less flat spiral of about three and a half whorls. The head is produced into an elongate snout measuring about 4 mm. The mouth is bounded on either side by the lateral expansions of the snout which resemble labial palps. They are used in feeling the surface on which the animal moves. The tentacles are cylindrical and

* The shells were all collected from the Tirupati hills at an elevation of about 2,000 ft.

slightly tapering. The eyes are placed on lateral prominences of the tentacles at their bases.

Viewed from the right, the columellar side of the body-whorl of the female is occupied by the uterus, and in the upper part, by the lower portion of the gland of concretions. In the penultimate whorl the stomach, the digestive gland and the concrement gland (gland of concretions) are seen. The cul-de-sac of the stomach extends to the apex of the visceral mass. Whorls 1 and 2 are occupied by the digestive gland and the ovary in its midst. In the mantle the ramifications of the pallial circulation are very clearly discernible. Seen from the left, the body-whorl shows the coiled part of the intestine covered by the gland of concretions and the paricardium. A little behind, to the right is the kidney. The posterior aorta runs on the ventral surface of the cul-de-sac of the stomach. Most of the parts of the body are in shades of grey.

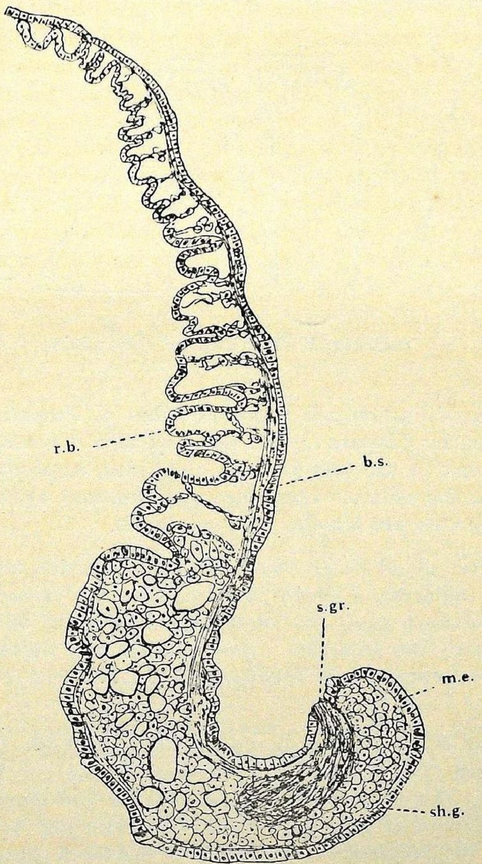
The foot measures about 13 mm. and shows the deep median fissure characteristic of the family *Pomatiasidae*. In locomotion, the two halves of the foot move alternately. The peristaltic contraction starts at the posterior end of one half of the foot and travels forward causing its forward movement; next a similar wave starts in the other half and effects its forward movement. The pedal glands are of the types described by Garnault (3). The mantle cavity shows the same features as in *Pomatias*. The inner epithelium of the mantle in its anterior part is very much folded and contains very large lacunae, resembling the condition described by Garnault (3) as constituting rudimentary branchiae. These are, however, shorter than in *Pomatias*. The shell glands open into the supramarginal groove. A supra-marginal ridge with glands opening on it is not discernible.

The most prominent structure in the mantle cavity is the kidney. It has a somewhat semi-circular outline and projects into the mantle cavity. It measures 5 mm. by 3 mm. The renal aperture is close to the posterior border and is easily made out. The osphradium is a small structure situated at the extreme left, near to the mantle collar and is about 1·5 mm. in length. Its shape resembles that of *Pomatias*.

The prominent concrement gland, which is excretory in function, is situated dorsally, and surrounds the style sac and the coils of the intestine. It does not envelop the kidney, being situated behind it. The concretions are round.

The radula is about 8 mm. long and has about three hundred transverse rows of teeth, having the usual Taenioglossate formula. The central is large and nearly of the same height as the laterals and the marginals. It is elongate and trapezoid in outline, with the anterior margin bearing a prominent cusp with two or three smaller cusps on

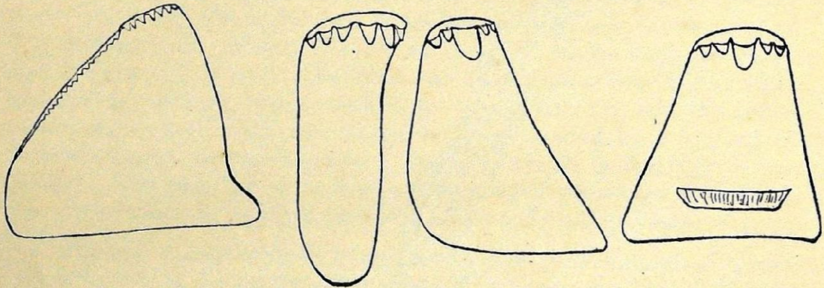
either side. In the lateral the inner margin is very abruptly oblique and not parallel to the outer. The anterior margin bears one large denticle and usually two smaller ones on each side. The inner marginal is elongate, rather oblong, and has a somewhat spatulate appearance



Text Fig. 1.—A section through the mantle, *b.s.* blood-sinus; *m.e.* mantle epithelium; *r.b.* rudimentary branchiae; *s.gr.* supra marginal groove; *sh. g.* shell gland.

owing to the slightly reflexed anterior margin. It bears 4 to 6 short cusps. The outer marginals are shaped like the segment of a circle. In the cutting edge two regions can be made out according to the nature

of the cusps. The first seven cusps on the inner side are fairly well developed and this portion of the tooth protrudes slightly beyond the rest. The remaining cusps are minute and about fifteen in number. They become more superficial towards the exterior of the tooth which presents a superficially pectinated appearance.



Text Fig. 2.—The teeth of the radula.

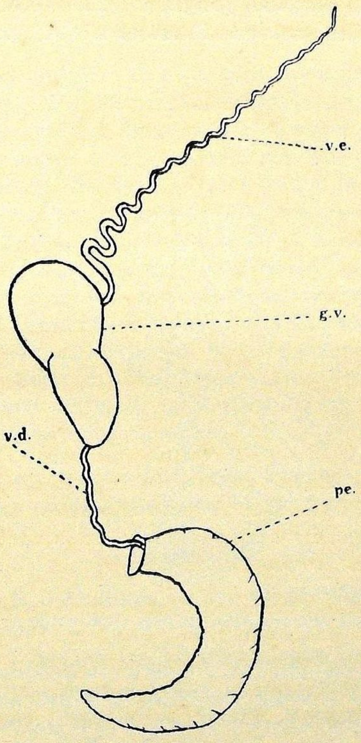
The radula of *Cyclotopsis* resembles that of *Pomatias,* a figure of which was given by Claparade, but the central of *Cyclotopsis* has more regular sides, and in the lateral teeth the sides, as already stated, are not parallel and the central cusp is not so prominent as in the *Pomatias*. The inner marginals are smaller in *Cyclotopsis*.

The digestive gland forms two lobes, the superior and the inferior. There are two main ducts which unite to form the principal duct opening into the stomach near the oesophageal opening and close to the commencement of the stomach. The cells in the digestive gland are all alike, there being no differentiation into ferment cells and gland cells.

The reproductive system shows a few differences, compared with that of *Pomatias*. The position and structure of the ovary are the same as in *Pomatias*. The oviduct is long and tubular and more or less of the same width for the greater part. The lower portion is coiled and as it approaches the receptaculum seminis, it becomes stouter and shows two coils. The receptaculum seminis which is oval in shape is smaller than in *Pomatias* and situated in the middle of the uterus. The upper part of the uterus is creamy white in colour. The lower part resembles that of *Pomatias*.

The testis is composed of rather compressed tubular follicles mixed up with those of the digestive gland. The vas deferens is fairly stout and thrown into about thirteen coils, the lower of which

are stouter. In *Pomatias* the vas deferens is of uniform width throughout, except under the glandular vesicle where it presents a prominent attenuation. In *Cyclotopsis,* on the other hand,

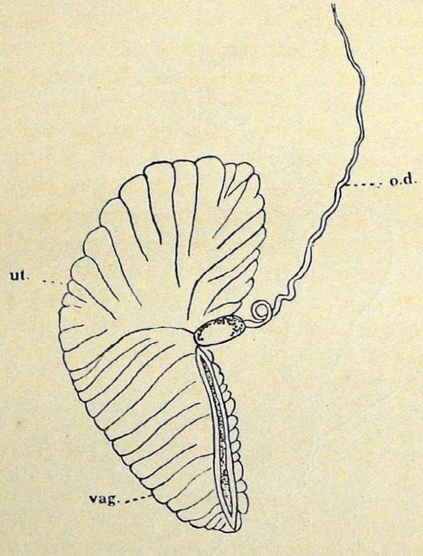


Text Fig. 3.—Male reproductive system; *g.v.* prostate (glandular vesicle); *pe.* penis; *v.d.* vas deferens; *v.e.* vas eferens.

the vas deferens becomes thicker as it approaches the glandular vesicle. The glandular vesicle or prostate is pyriform in shape, with its narrower end directed forwards. It is more elongate than in *Pomatias.* The penis arises from the floor of the mantle cavity. It is about 6 mm. long, sickle-shaped and resembles that of the Hydrobiidae without a diverticulum or appendage. The lower part of the vas deferens is coiled and about 2 mm. long.

The nervous system is similar to that of *Pomatias.* The cerebral ganglia are irregularly oval, slightly concave on the outside. The cere-

bral commissure is situated at a distance of 3 mm. from the oral aperture. The superior border is directed outwards and forwards. The optic nerve is a slender one arising from just behind the external concave region of the cerebral ganglion. The tentacular nerve is the stoutest of the cerebral nerves. It arises slightly posterior to the other



Text Fig. 4.—Female reproductive system. *o.d.* oviduct; *ut.* uterus; *vag.* vagina.

nerves from the dorsal part of the cerebral ganglion. As it enters the tentacle it presents a small yellowish swelling, and then proceeds to the tip of the tentacle where it enlarges into the tentacular ganglion.

The superior border gives rise to the chief cerebral nerves. Nerve No. 1, which may be termed the proboscidian nerve, is very superficial and runs to the anterior part of the snout where it gives off three main slender twigs.

Nerve No. 2 arises to the outside of the proboscidian nerve from the anterior border of the superior lobe, and bending down over the lateral surface of the buccal bulb, proceeds forwards to the lateral parts of the snout. Nerve No. 3 arises to the outside of Nerve No. 2. Passing downwards, it crosses No. 2 and supplies the lateral parts. The fourth nerve, soon after its origin, divides into two portions, the inner of which constitutes the buccal nerve. It proceeds forwards at first under the protractors of the buccal mass, and then turning backwards, passes under the superficial muscles of the buccal mass and enlarges on its

dorsal surface into the buccal ganglion. The buccal ganglia which are elliptic in shape are situated just under the origin of the oesophagus. They are connected by a long commissure. Two nerves arise from each buccal ganglion and the commissure itself gives off a fine nerve on each side. The nerve to the statocyst arises to the inside of the optic nerve.

The right pleural ganglion is oval in outline, and approximated to the cerebral ganglion. The left pleural ganglion is separated from the cerebral ganglion by a rather long cerebro-pleural cord. It is somewhat triangular in outline. The left pleuro-pedal is thicker than the cerebro-pedal and gives rise to a slender pallial nerve which divides into two immediately after its origin. The left pleural gives rise to a fairly stout pallial nerve. The sub-intestinal is slightly longer than the supra-intestinal. The visceral loop resembles that of *Pomatias*. Each pedal ganglion gives off five posterior nerves more or less of equal thickness, and three lateral nerves arising rather ventrally. The pleuro-pedal connective, close to the pedal ganglion gives off a short lateral nerve. The part of the ganglion from which the posterior nerves arise is marked off by a constriction from the remaining portion. The statocysts are as in *Pomatias*.

My best thanks are due to Dr. Baini Prashad for the verification of the species and for sending me some of the references.

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Nature Poetry in Kalidasa's Raghuvamsa

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(Continued from page 29, Vol. IV, No. 1.)

The moon too in her various aspects, as she appears in legend, myth, astronomy and popular belief, serves as a very fruitful subject for poetic comparison. The imagery of the moon has been almost worked to death by later poetasters and rhetoricians; but if we examine carefully Kālidāsa's words we are almost always sure to find that the well-known symbolism is used in a new and in a startlingly suggestive manner. In the very first canto of the great epic, describing the birth of Dilīpa, the most eminent among kings, the poet says:[1] In the pure race of Manu was born one who was purer still as the moon arose from the milky ocean. Whiteness is implied here as the symbol of purity. When the moon rises of an evening in the clear tropical sky the dark blue waters of the ocean suddenly put on brighter colours and the floor of the sea seems to be broken up into sheets and fragments of purest gold. But here and there the darkness still persists; suppose the sea was one of milk as legend says; even these streaks of sombre hue will disappear. The moon rains down gold and the ocean of milk is more resplendent than ever. The beauty of the moon is increased by the milky ocean and the ocean in its turn is excited to greater charm by the moon. The royal dynasty of Manu was adorned and graced by Dilīpa as the ocean of milk by the moon. What a far cry from saying that the king resembled the moon in splendour! Dilīpa and Sudakshina[2] seemed to possess an indescribable charm as they travelled in brilliant dress towards Vasishta's hermitage—a charm like that of an April moon freed from mists (literally: like that of the moon and *Chitra* at conjunction when freed from mists.) In the month of *Chaitra* (March—April) the conjunction of the moon and the constellation *Chitra* occurs on the full moon day; the moon's rays are peculiarly bright in this month and it is considered auspicious to worship him on the full moon day. The appearance of the royal pair glad-

1. R. I, 12. 2. R. I, 46.

dened the hearts of their subjects; it was such unmixed joy as that of the moon in April.

Astronomy and mythology are transformed into poetry when the lion compares the Dhēnu who had fallen into his power to the moon who enters the ecliptic of the earth. 'This feast of blood after my fast is enough to satisfy me who am hungry just like the nectar of the moon is to the enemy of the Gods.'[3] The demon Rāhu greedily laps up the nectar oozing out from the moon as the lion licks up the blood dripping down from the cow. Rāhu thirsts for the nectar as the lion is ravening for blood after its enforced fast. This simile is often cited to prove the exact astronomical knowledge of Kālidāsa since 'Rāhu and Kētu are the points of intersection of the moon's orbit and the ecliptic of the earth.' As Rāhu is fixed to a particular spot and the moon travels up to his area so is the lion fixed to the mountain cave and the cow goes up to him. In spite, however, of this exactitude this simile has features more appealing than these. The emotion that is aimed at is sympathy for the cow in its apparent fear of the lion. This simile serves to bring out the dark and threatening aspect of the lion and the pleasing and beautiful appearance of the cow and the very arresting contrast that they presented. The Dhēnu on whom the lion had sprung was like the moon in partial eclipse. King Dilīpa[4] announced the happy news of the success of his quest to his guru, with a countenance beaming like the full shining moon, and when he told the same to his wife it seemed to be a work of supererogation—his joy was so apparent in his face.

On his return from the hermitage the king's subjects[5] began to drink him in with their eyes as they would the newly risen lord of the vegetable world (*i.e.,* the moon). Like the moon in the beginning of the bright fortnight the king too was very much reduced as a result of his vow for the birth of a son. According to Vedic myth the moon is not only the Lord of the Soma but he is himself made up of sweet nectar and the gods in turn drink him up till his form becomes imperceptible; then, gradually but surely, he regains his brightness and his form till he becomes full; when the process starts once again. The moon is in a scarcely perceptible form on the days immediately after the new moon; but still eager crowds await to see him; so eagerly do the people await the appearance of the King. Queen Sudakshina[6] bore the foetus within her for the prosperity of the royal race as the heavens held the luminary sprung from the eyes of Atri or as the Ganges sus-

3. R. II. 39.
4. R. II, 68.
5. R. II, 73.
6. R. II, 75.

tained the mighty seed of Siva thrown off by Agni. Rāghu in embrio was like the moon, the tears of Atri, and like the foetus of the God of War held by the Ganges. Describing the conception of the illustrious hero of his grand epic the poet wishes to suggest the lovable and the heroic qualities of Raghu.

The signs of pregnancy[7] which Queen Sudakshina bore were pleasing to the eyes of her gentlewomen in waiting as fresh moonlight. To the messenger[8] who announced the glad tidings of the birth of a son King Dilīpa could not present only the insignia of his royal authority—his umbrella white as moonlight and his two *chauris* : everything else he was ready to present.Under the fostering care of his father[9] who possessed all forms of wealth he grew up from day to day with growing limbs as the young moon increases in size by the infusion of the sun's rays. The princesses[10] who married Rāghu resembled the daughters of Daksha—the twenty-seven constellations—who were married to the moon. Then [11]the eyes of men were equally delighted by the King's sweet countenance and by the autumn moon whose rays were bright. Rightly [12]indeed does the suzerain display a destitution born of sacrifice; the waning of the digits of the moon which are drunk in regular order by the gods is more to be praised than his increase in size. Judging the destitution of the king from the earthen pot employed by him the learned Kautsa says he wishes not to ask the king for the money. But Kautsa, despite his learning, was counting without his host; the generous Rāghu was resolved that no suppliant should depart from his door without his wishes being met. Describing Raghu,[13] the uncontested lord of the world, the poet says that the king was charming as the moon; but he was superior even to the moon in that he was stainless and an undisputed master of the World. He suggests that in spite of his lack of gold the king's face was joyous as ever and showed that there were inexhaustible treasures in his generous valour. Aja[14] who sipped the waters of the Narmada and received initiation into the mantra governing the holy missile from the *gandharva,* Priyamvada, is called *nṛsōma,* the best of men. The epithet however implies a comparison between the moon and Aja. The moon, *sōma,* is the celebrated disciple of the wise teacher of the gods, *Brihaspati.* Though he was the wisest of men it is no disparagement of his wisdom if he was initiated by a supherhuman being. On the approach of Aja to the capital the

7. R. III, 1.
8. R. III, 16.
9. R. III. 22.
10. R. III, 33.
11. R. IV, 18.
12. R. V, 16.
13. R. V, 23.
14. R. V, 59.

King of Vidarbha[15] was overjoyed and went forth—as the ocean with upheaving waves does towards the moon—to receive him who had halted outside the city. Describing the King of Magadha to the princess Indumati, Sunanda,[16] her lady-in-waiting, says that the earth can be said to be under good rule only because of that king; the sky is crowded with constellations, stars and planets, yet the night is lit up only by the moon. The same lady pointed out to the princess the handsome King of Ujjain[17] as the people point out the newly visible moon. Though the King of *Anūpa*[18] was very handsome he did not please her; the moon is not agreeable to the day lotus though he be complete in all his digits and free from overhanging clouds. At home[19] the splendour of the King of Sūrasēna was pleasing like moonlight; but it was insufferable in the houses of his foes. As they drew near the King of Kalinga, Sunanda[20] described his prowess and lineage to the young princess whose face was charming like the full moon. The encomiums of the Pandya King[21] did not touch the heart of the princess; the ray of the moon enters not the lotus when it is closed after sunset. Noticing that the attention of Indumati[22] who was charming as moonlight was fixed on Aja, the attendant described in detail the prowess of the Ikshvāku race. The epithet *induprabhām* suggests that Indumati being so pleasing no one can be indifferent to her and that the princess has come to the end of her quest having found her prince charming. Pleased at the union of Aja and Indumati[23] the citizens spoke with one voice that there was the moonlight reunited to the moon who was freed from clouds and the Ganges had descended to the ocean who was so suited to her. Clad in silk[24] the prince was led near the bride by the respectful attendants of the harem just as the water of the ocean with its distinct lines of foam is carried to the shore by the rays of the young moon. For three nights the King of Vidarbha[25] travelled with Aja and then parted as the moon recedes from the sun at the end of the conjunction. The prince's warriors[26] who came back on recognising the sound of his conch-shell, beheld him in the midst of his slumbering foes like the shining image of the moon in the midst of closed lotuses. On contact[27] with the heavenly flowers Indumati expired as does the moonlight when Rāhu removes the moon.

15. R. V, 61.
16. R. VI, 22.
17. R. VI, 31.
18. R. VI, 44.
19. R. VI, 47.
20. R. VI, 53.
21. R. VI, 66.
22. R. VI, 70.
23. R. VI, 85.
24. R. VII, 19.
25. R. VII, 33.
26. R. VII, 64.
27. R. VIII, 37.

With the queen's body[28] on his lap the king who was pale by his swooning looked like the moon with the dim outline of a deer at early morn. King Aja marvels that he is alive even though his wife was gone to the land from whose bourne no traveller returns; the night returns back to the moon and the Cakōra to her mate. Without Indumati the king was like the moon in day time; with her he was bright and joyous, without her he was pale and little better than dead. "Your desertion[29] of me is certainly cruel" says the king to his dead wife. "Here am I entirely devoted to you; here are your companions who share in all your griefs and joys; here is your son handsome and promising like the first digit of the moon."

In Canto IX the poet refers to the wine[30] adorned by the reflection of the moon and to the splendour of Dasaratha[31] which was like that of the fire and of the moon. The epithet *sōma* meaning one from whom nectar oozes is designed to bring out the beneficent activities of this powerful king. Dividing[32] his form into various parts the Lord himself though one reposed in the wombs of Dasaratha's wives as the reflection of the moon in clear waters. This image brings out most beautifully the idea of the immanence of the one God. Rama and Lakshmana[33] as well as Bharata and Satrughna were always united as two pairs; as are wind and fire, moon and ocean. Sita[34] laughed at Sūrpanakha when she was rejected by Rama and Lakshmana; though she had assumed temporary calmness this laughter cast Sūrpanakha into an agitation; so does the rising of the moon agitate the waters of the sea which is smooth when there is no wind. Recounting[35] the greatness of ocean Rama tells his spouse that the gladdening flame, *i.e.* the moon, was brought forth by him. On his aerial[36] journey from Lanka to Ayodhya Rama sees the lake *Panchāpsara* of the sage Satakarna—a lake girt with woods—and says that it looks in the distance like the orb of the moon slightly seen from behind the clouds. On the aerial car[37] decorated with fluttering flags Rama took his seat with his two younger brothers as the beautiful moon in conjunction with *Budha* and *Brihaspati* takes his seat at night on a mass of clouds graced with tremulous flashes of lightning. Bharata[38] saluted the joyous Sita who had been rescued by

28. R. VIII, 42.
This preludes the famous lament of Aja for his dead queen. Sanskrit poets fancied that the dark regions in the Moon's disc were in the form of a deer. Hence the moon is called Ṣasānka.

29. R. VIII, 65.
30. R. IX, 7.
31. R. IX, 31.
32. R. X, 65.
33. R. X, 82.
34. R. XII, 36.
35. R. XIII, 4.
36. R. XIII, 38.
37. R. XIII, 76.
38. R. XIII, 77.

Rama from the clutches of Ravana as the earth is rescued from the flood by the Lord of the Worlds, as the light of the moon is liberated from the clouds by the end of the rainy season. Addressing his brothers regarding the banishment of Sita, Rāma[39] says : I know she is innocent ; but mighty is the censure of the public; the masses consider the shadow of the earth on the moon as a stain on her. The sage Vālmiki[40] gave the grief-stricken Sita to the charge of the female ascetics; it was like *Darsa* (the new moon) consigning to the herbs the last digit of the moon whose essence had been quite finished up by the *Pitris*. Hearing the news of Sita's lamentation Rama[41] who had banished his spouse from his palace but not from his heart instantly became bedewed with tears like the moon of Pausha shedding drops of cold water. As the autumn[42] is met by the glorious moon so was Rama met by the powerfult Agastya who showed himself in his path. In the deserted city of Ayodhya the rays[43] of the moon though clear like the strings of pearl did not shine bright at night on the dilapidated and grass-grown palaces. Kusa[44] who had a pure white circular umbrella led the armies towards the land of the residence of his ancestors; their rush resembled the sea waters drawn on by the rising moon with her disc as clean as the royal white umbrella. Describing the ladies[45] of the king's harem the poet compares the colour of their dresses to moonlight and their girdle ornaments to stars. Kumudvati[46] followed Kusa to the other world as the moonlight follows the moon. When Atithi became king[47] he looked like the moon which had suddenly changed from a streak to the full orb. He rapidly grew[48] in power like the moon and the ocean but did not decline like them. The rays of the moon[49] do not penetrate the day lotus; but even his enemies acknowledged King Atithi's virtues. Hiranyanābha[50] got a son named Kausalya who was like a second moon, a veritable feast to the eyes. Sudarsana son of Dhruvasandhi[51] was handsome like the moon after *Darsa*. The family of Rāghu[52] with this young king was comparable to the sky having the young moon in it, or to a wood having a single lion in it or to water having a solitary unblossomed lotus. A disease began to weaken *Agnivarna*[53] like the curse of Daksha consuming the moon.

39. R. XIV, 40.
40. R. XIV, 80.
41. R. XIV, 84.
42. R. XV, 54.
43. R. XVI, 18.
44. R. XVI, 27.
45. XVI, 65.
46. R. XVII, 6.
47. R. XVII, 30.
48. R. XVII, 71.
49. R. XVII, 75.
50. R. XVIII, 27.
51. R. XVIII, 35.
52. R. XVIII, 37.
53. R. XIX, 48.

While the king[54] was wasting away with consumption his family appeared like the sky with the moon in her last digit.

Kalidasa's description of the ocean in Canto. XIII[55] is one of the best known purple patches in the poem. Returning to Ayodhya after the destruction of Ravana, Rama seated in his aerial car points out to Sita the wonders of the lands over which they were flying and preludes it with a description of the ocean—the store house of unnumbered jewels. "O Vaidēhi, look at this foamy world of waters divided from the Malaya mountain by my extensive bridge; thus is it like the clear summer sky glittering with stars divided by the Milky Way. The story goes that this was made by our ancestors, the sons of Sagara, in their search for the Sacrificial horse drawn into the nether-world by the sage Kapila. By this are the sun's rays impregnated with water (to be converted into rain); here do treasures gain an increase; this holds the fire whose fuel is water; this gave birth to the joy giving orb (*i.e.,* the moon). None can define the nature or size of the ocean any more than those of the Lord of the Universe; infinite are its phases and incalculable its might which covers the ten quarters. Having destroyed the worlds at the end of each quarternian of a *yuga* Purusha reposes on this and practises *Yoga-nidra* while He is praised by the first Creator who is seated on the lotus sprung from his navel. The ocean gave shelter to many a mountain who sought refuge in it fleeing from Indra who was intent on cutting off their wings; so does a just and neutral sovereign shelter kings who are harrassed by enemies. When the earth was lifted from the nether world—married —by the Primeval Being the clear waters of the ocean which had increased by the deluge served her as a temporary veil. Thousands of rivers empty their waters in the ocean and their mouths in turn receive the waves of the sea; thus the ocean seems to sport with his river-wives, kissing and being kissed. Here the whales open their mouths into which the waves and the fishes enter and close them shooting out high jets of water. Suddenly the sea-elephants rise to the surface cutting through the foam which looks like *Chauries* near their ears. Serpents that have stretched themselves on the shore could be distinguished from the waves only by the jewels on their hoods, which shine bright in the rays of the sun; conches tumble on the coral reeves. The dark cloud seems to touch the very waves and when it whirls round in the strong breeze it seems as though the ocean is being churned a second time. This long streak of coast line dark with the forests of palms resembles the iron band on a wheel or

54. R. XIX, 51.

55. R. XIII, 2—17.

a streak of rust on a sharp edge. The sea breeze wafts to us the fragrance of the Kētaka flowers and the coast is scattered with pearls and covered with areca-palms bending under loads of fruits. The earth with its forests and trees seems as it were to spring out of the sea. So fast have we travelled."

In this description Kalidasa has brought out the might and grandeur of the ocean. He has exploited fully its classical and mythological associations. The ocean existed even before the world began; though the Solar race of kings claim that it is the handiwork of their ancestors. He refers to the churning of the ocean and the myth of the birth of the moon. Many mountains and volcanoes lie submerged under the waves. The ocean abounds in whales and sea-horses, conches and corals. Perhaps all this could be written by one who never saw the sea. The serpents recognisable by their shining crest jewels is pure fancy; but the description of the whale blowing and of the sea-horse rising amidst the foam can be described only by one who has seen them. The dark cloud bending towards the waves and the long streak of dark littoral looking like rust on a knife-blade must have been noted by one who was far out in the sea. The comparison of the ocean to the star-spangled sky and to the Infinite and Almighty Being are in his best vein. However the scattered and stray references to the ocean and intuitive touches which bring out its beauty reveal more the attitude of the poet than this set description.

In the very opening lines of the poem Kalidasa refers to the virtues of the Solar race[56] which are infinite as ocean. King Dilīpa[57] inspired love and respect in his subjects by his kingly qualities; as does the ocean with its treasures and sea animals. The King[58] ruled over the earth as if it were a single city with the ocean for its moat. He protected the sage's cow[59] as if it were the earth itself in the form of a cow with the four oceans as its teats. While describing the expectant Queen Sudakshina[60] the poet describes the ocean as a raiment of the earth and he refers in more than one place to the magnificence and sublime beauty of the ocean when the moon rises.[61] By a right understanding of the alphabet[62] Rāghu entered the ocean of words as through a stream. Raghu[63] cut off the bowstring of Indra which was booming like the ocean lashed into fury by a crescent

56. R. I, 2.
57. R. I, 16.
58. R. I, 30.
59. R. II, 3.
60. R. III, 9.
61. R. III, 17, etc.
62. R. III, 28.
63. R. III, 59.

shaped arrow. "The matrons[64] of the city covered him with fried grain as the milky ocean covered the Eternal one with the sprays tossed up by the Mandara mountain." While describing the conquest of the Pāndya princes by Raghu[65] the poet refers to the pearls that were to be found in the ocean near the mouth of the Tāmraparni. Rāghu's army that invaded Kerala is compared to the western ocean.[66] The King of Kalinga is described as the lord of the ocean[67] whose waves which could be seen from his palace windows woke him from sleep every day with their deep roar and thus rendered the morning trumpets unnecessary. Kalidasa refers more than once to the story of the ocean being drunk up by Agastya[68] and its being scattered with jewels: to the southern quarter the ocean serves as a girdle set with jewels. Aja,[69] the matchless and dauntless prince, repelled the enemy's host as the powerful boar dashed back the waters of the ocean overflowing their bounds at the time of the deluge. The king[70] was indifferent towards none of his subjects; the ocean never repulses the hundreds of rivers that go to join it. When Trinabindu's[71] penance was interrupted his mental calmness was overthrown by the deluge wave of wrath. To the victorious Dasaratha[72] the oceans thundering like the clouds served as kettle-drums to proclaim his success. The daughters of the Kings of Kōsala,[73] Kēkaya and Magadha gained Dasaratha for their husband as the rivers gain the ocean. The king[74] bearing the sage's curse in his heart resembled the ocean with submerged volcanoes. Awaiting a direct cause for progeny the king[75] remained childless for long; before it was churned the ocean showed not its capacity to produce jewels. "Countless[76] are the treasures of the deep; innumerable the rays of the sun; so are thy deeds which transcend all words of praise," say the gods to Vishnu and complain that even though final destruction has not yet come the ocean in the form of the Rākshasas had overflowed its shore. Then Vishnu drowning with his vocie the sound of the ocean spoke and his words echoed in the hollows of the mountains near by. As Indra[77] received the nectar born of ocean so the king received the food presented by that divine Being. Dasaratha's[78] four sons delighted their father with their virtues as did the extensive oceans, the abodes of jewels, please the lord of the world

64. R. IV, 27.
65. R. IV, 50.
66. R. IV, 53.
67. R. VI, 54 & 56.
68. R. VI, 61& 63.
69. R. VII, 56.
70. R. VIII, 8.
71. R. VIII, 80.
72. R. IX, 11.
73. R. IX, 17.
74. R. IX, 82.
75. R. X, 3.
76. R. X, 30, 34, 35.
77. R. X, 52.
78. R. X, 85.

with their treasures. Parasurama[79] tells Rama : If you are not defeated, my prowess which has destroyed Rākshasas is of no avail ; the power of the fire is seen in that he blazes even in the ocean as in dry grass. Having renounced Sita[80] the king enjoyed the earth alone which had for its girdle the depository of jewels (i.e., the ocean). Though King Atithi[81] had grown more powerful he never followed a wrong path; even when the waters of the ocean increase they go up only by the rivers. By going to the king[82] poor but righteous men ceased to be suppliants but became donors ; so do the suppliant clouds become capable of giving water to others by resorting to the ocean.

As in Greek poetry the centre of interest in Kalidasa's poetry is man and his doings. He does not resort to nature as an escape from the madding crowd's ignoble sway. He does not try to read message or meaning in her. In fact he does not see any rigid line dividing man from nature. Man too is part of nature. So he describes man with similes taken from stories and observations of plant and animal life and invests with human personality rivers, mountains and animals. There is God's own plenty in India of animals, trees and plants ; and there is an equal wealth of them in Kalidasa's *magnum opus*.

Dilīpa[83] looked like the embodiment of martial valour: his chest was broad, his shoulders like those of a bull, his arms long and his stature tall like the Shāla tree. Before entering the forest King Dilipa[84] had laid aside the insignia of royalty; yet from his peculiar lustre his royal position could be inferred; thus he resembled a majestic elephant inwardly in rut but not showing lines of ichor on its head. Like a creeper[85] putting forth fresh and charming shoots after the fall of old leaves Queen Sudakshina shone with developing limbs after she passed through the early troubles of pregnancy. In more than one place the *Chakravaka*[86] (the brahminy duck) serves the poet as an emblem of constant love. In the course of his victorious career Raghu[87] uprooted the chieftains of Bengal and again restored them to their places and they bent down before him bearing rich presents ; so does the *Kalama* (paddy) when transplanted yield more, its stalks drooping under the weight of grain. He fought a fierce battle with the western chieftains and covered[88] the earth with their bearded heads as if they

79. R. XI, 75.
80. R. XV, 1.
81. R. XVII, 54.
82. R. XVII, 72.
83. R. I, 13.
84. R. II, 7.
85. R. III,7.
86. R. III, 24, & VIII, 56.
87. R. IV, 37.
88. R. IV, 63.

were so many honey combs covered with bees. The beautiful image of the *Chataka*[89] (pied crested cuckoo) begging the cloud for water is referred to time and again by Kalidasa. Prince Aja[90] ascended the seat indicated to him by his host, by a flight of steps as a lion-cub leaps up a mountain peak by means of the jutting ledges of rock. The eyes of Indumati[91] are beautiful as those of the *Cakora* (Chukar) while the glances of Sita[92] are quick like those of the deer. When Rama's brother[93] departed from her sight with the words, 'Bet it so,' in her great grief, Sita cried out aloud like a frightened osprey. Clad in yellow and with eyes fixed on her feet the chaste Sita[94] entered once again the presence of Rama and the people averting their eyes from her stood with bowed heads like paddy blades in grain. Coming up to Raghu[95] who was faultless in every limb Indumati desisted from further advance; a row of bees never wishes to proceed further after reaching a mango tree in full bloom. Describing the city dames[96] who crowded the windows to see the bridal procession the poet compares their faces with their swimming eyes to lotuses over which bees hover. Kalidasa describes with great zest the appearance and activities of the sage's cow and the lion in the Himalayan cave; he takes every opportunity to drag in a reference to the elephant and he gives a very fine description of the wild elephant[97] which attacked Aja's camp on the Narmada: "Suddenly a wild elephant emerged from the river. Clusters of bees hovering above the water had already indicated his presence. All the ichor had been washed away from his broad cheeks. He still bore marks on his tusks of his sports in the Rikshavat mountain: his tusks were indented by stones and bore blue mineral stains. He came forward rapidly making a huge noise with his protruded proboscis. As he advanced through the water water-plants garlanded his huge chest and the waters seemed to run to the bank before him. On seeing the tame elephants the ichor began to flow once again from his head and excited by its powerful odour the elephants in Aja's army broke their bonds and fled. In an instant he threw the camp into unutterable confusion."

Such sympathy and understanding had Kalidasa of the animate and inanimate world around him. In short so deep is his sympathy and so wide his understanding that the distinctions between the sentient and non-sentient world seems to vanish. As man can be in tune

89. R. V, 17.
90. R. VI, 3.
91. R. VI, 59.
92. R. XIII, 18.
93. R. XIV, 68.
94. R. XV, 78.
95. R. VI, 69.
96. R. VII, 11.
97. R. V, 43 to 50.

with nature so nature too understands and shares in human feelings and emotions. When King Aja[98] lamented the sudden demise of his beloved queen, Indumati, the trees themselves who witnessed his sorrow wept with him. By means of the branches [99] whose foliage had been bent down, the compassionate creepers pointed out to Rama the path by which Sita had been carried away by the demon. When the banished Sita[100] wept aloud there was great sorrow in the forest: the peacocks gave up their dancing, trees cast their flowers and the deer dropped down the half-chewed grass. All nature seemed to sorrow with Sita. To save interruption[101] to Valmiki's penance, without entering, Satrughna passed by the sage's hermitage where the deer were motionless, enraptured by the songs of Sita's sons.

Thus we see that Kalidasa's approach to nature is marked by deep poetic feeling. His arresting sense of colour presents before our eyes indelible pictures of great natural beauty. Often nature serves the poet as a picturesque back ground for great and glorious deeds. He conveys to us not merely visual, but also auditory, olfactory and tactile impressions. In his treatment of nature the poet uses to the utmost the legends, myths and popular beliefs of his age and thus secures a very high degree of suggestiveness. He does not disdain to utilize even the poetic traditions of his time though these cannot stand the test of rigorous scrutiny. Kalidasa uses nature to illustrate human life; and abstractions themselves become warm and living when lit by his wonderful nature similes. This great poet of our land presents to us innumerable sketches of the wide and varied natural life in our hills and dales. In short he is so deeply steeped in the nature that surrounded him that he realises the oneness of man with nature. One cannot read many lines of *Raghuvamsa* without seeing the brilliance of the Indian sun and the soft and pleasing radiance of the moon, without feeling the cool and gentle mountain breezes laden with the scents of wild trees and flowers, without hearing the notes of the Sārasa, the osprey or the Koil or without being charmed with the beauty of the lotus or the peacock. Nothing can convey to us more vividly the beauty of our countryside, the calm grandeur of our forests, the majesty of our rivers or the sublimity of the ocean that laps our shores than the poetry of Kalidasa, a magic speculum which reveals the touch of beauty even in the lowly grass that grows under our feet.

98. R. VIII, 70.
99. R. XIII, 24.
100. R. XIV, 69.
101. R. XV, 37.

தொல்காப்பிய ஆராய்ச்சி.

(முன் தொடர்ச்சி)

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தொல்.—பொருள்.—செய்யுளியல்.

சூத். 154. " தரவும் போக்கும் பாட்டிடை மிடைந்தும்
ஐஞ்சீர் அடுக்கியும் ஆறுமெய் பெற்றும்
வெண்பா இயலான் வெளிப்படத் தோன்றும்"

சூத். 155. " பாநிலை வகையே கொச்சகக் கலியென
நூனவில் புலவர் நுவன்றறைந் தனரே."

இச்சூத்திரங்களுக்கு நச்சினர்க்கினியர் பேராசிரியரது உரையையே வேறுபாடு யாதுமின்றிச் சில சொல் மாற்றங்களுடன் கொண்டுதருதலான், இவ் விருவர் உரையும் ஒன்றே யாகக் காண்கிறோம். முதற் சூத்திரத்தின்கீழ், கொளுவுரையில் பேராசிரியர் "வெண்கலி" என்றதை நச்சினர்க்கினியர் "கலிவெண்பா" என மாற்றினது தவிர, இவருள் வேறு பொருள்மாறுபாடு காணற்கில்லை. இருவரும் இங்குத் தொல்காப்பியச் சூத்திர அடிகளை இரு சூத்திரமாகக்கொண்டு, இருவேறு விதி வகுப்பனவாகக் கருதுகின்றனர். இவற்றுள் முன்னையது அதன் முன்னர்க்கூறிய "ஒருபொருள் நுதலிய" என்னும் (செய். 153 ஆம்) சூத்திரத்திற் கூறிய கலிவெண் பாட்டின் வேருய் விரவுறுப்புடைமையின், ஆசிரியர் அதனை இங்கு வேறு கூறினதாக ஈண்டு இவ்விரண்டுரை காரரும் துணிகின்றனர். துணிந்து, இதன் கீழ் "தரவிற்கும்·போக்கிற்கும் இடையன பாட்டாகிப் பயின்றும், வேறு நின்ற ஒரு சீரினை அளவடியோடு அடுக்கிக்கூற ஐஞ்சீராகியும், அவ்வாறே இருசீர் அடுக்க அறுசீர் பெற்றும், வெண்பா எனப்பட்ட உறுப்பின் இயற்கை சிதையாமல் பொருள்புலப் படத்தோன்றும்" என்று பொருள் வரைகின்றனர். எனவே செந்துறையாகித் திரிபின்றி யார்க்கும் வெள்ளடியியலால் ஒரு பொருள் கூறும் கலிவெண்பாட்டு வேறு முற்கூறப்பெற்றதும், "தரவும் போக்கும் பாட்டிடை மிடைந்தும், ஐஞ்சீரும் அறுசீரும் அடுக்கப்பெற்று வெண்பா இயலான் வெளிப்படத்தோன்றும்" வெண் கலிப்பா வேறு இச்சூத்திரம் கூறுவதெனக்கொண்டு, கலிவெண்பாட்டு இருகூறு படுமெனவும், அதனுல் ஆசிரியர் இருவேறுசூத்திரங்களான் அவற்றை விளக்கி

விதிகள் வகுத்தனர் எனவும், பேராசிரியரும் நச்சினார்க்கினியரும் ஓராங்குக் கூறுகின்றனர். பிறகு, "பாநிலை வகையே ... ... நுவன்றறைந்தனரே" என்பதைத் தனிவேறு சூத்திரமாகக் கொண்டு, அதற்கு, "மேற்பாவின் நின்ற நிலை வகையான் கொச்சகக் கலியாமென்று நூலறிந்த ஆசிரியர் கூறித்துணிந்தனர்" என்று பொருள் கூறுகின்றனர்.

இவ்வாறு இருவேறு சூத்திரங்களாக்கி அவற்றிற்கு இவர்கள் தரும் உரை ஆசிரியர் கருத்தொடு பொருத்தம் உடையதாகத் தோன்றவில்லை. முன் இருசூத்திரங்களால், வெள்ளடியியலால் திரிபின்றி வரும் கலிவெண்பாட்டு ஒன்று, தரவுமுதலிய உறுப்பொடு வெண்பா இயலான் வெளிப்படத் தோன்றும் வெண்கலிப்பா ஒன்று, என இன்னணம் கலிவெண்பா இருவகைத்தென்று ஆசிரியர் கூறக்கருதின குறிப்பை இவர்கள் யாண்டுக் கண்டனர்? அஃதை விளக்குகின்றார்களில்லை. ஆசிரியர் செய்யுளியலில் "பாட்டு உரை நூலே" எனவரும் 79 ஆம் சூத்திரத்தால் செய்யுள் எழுவகைப்படும் எனக்கூறி, பின் "ஆசிரியம் வஞ்சி வெண்பாக் கலியென-நாலியற் றென்ப பாவகை விரியே" எனும் 105 ஆம் சூத்திரத்தால் பாட்டு நான்கு வகைப்படும் என விளக்கினர். அதன் பிறகு, "ஒத்தாழிசைக் கலி, கலிவெண்பாட்டே, கொச்சகம், உறழொடு கலிநால் வகைத்தே" என்ற 130 ஆம் சூத்திரத்தில் மேற்கூறிய தமிழ்ப்பாவகை நான்கனுள் கலிப்பா நான்கு வகை பெறும் என்று தெளித்தார். இவற்றுள், முதலதான ஒத்தாழிசைக் கலிப்பாவின் இலக்கணம் தொகை வகைகளை "ஒத்தாழிசைக்கலி" எனும் 131 ஆம் சூத்திர முதல் "எருத்தே கொச்சகம்" எனும் 152 ஆம் சூத்திரம் வரையுள்ள சூத்திரங்களில் ஆராய்ந்தார். இரண்டாவதான கலிவெண்பாட்டிலக்கணத்தை "ஒருபொருள் நுதலிய......" எனவரும் 153 ஆம் சூத்திரத்தில் விளங்கக் கூறினர். நான்காவதான உறழ்கலிப்பா இலக்கணம் "கூற்றும் மாற்றமும்.........உறழ்கலிக் கியல்பே" எனும் 156 ஆம் சூத்திரத்தால் விளக்க முறுகிறது. எஞ்சிய கொச்சகக் கலிப்பா இலக்கணம், இவ்வுரைகாரர் கொள்கைப்படி யாண்டும் விளக்கப்பெறாது ஒழிவதாகும். கலிப்பாவகை நான்கில் மூன்றற்குத் தனித்தனி இலக்கணத்தை விளக்கும் ஆசிரியர் இக்கொச்சகக்கலி ஒன்றற்கு மட்டும் இலக்கணத்தை விளக்காமல் பெயரளவில் சுட்டிச் சூத்திரித்து அமைத்தார் என்பது இயைபுடைய தாமா? கலிவகை நான்கில் இரண்டாவதான "ஒருபொருள் நுதலிய" எனும் கலிவெண்பாட்டிலக்கணச் சூத்திரத்திற்குப் பின்னும், "கூற்று மாற்றமும்" எனும் நான்காவதான உறழ்கலி இலக்கணச் சூத்திரத்திற்கு முன்னும், நிறுத்த முறையானே கலியின் மூன்றும் வகையான கொச்சக இலக்கணம் கூறப்பெறல் வேண்டும்; அதுவே முறையுமாகும். இவ்வுரைகாரர்கள் இவற்றின் இடை நின்றதை இருவேறு சூத்திரமாக்கிக்கொண்டு, ஒன்று முற்கூறிய கலிவெண்பாட்டின் வேறுபாடெனவும், மற்றொன்று கொச்சகமெனவும் கொள்கின்றார்கள். இதில், முன்னையதில் இலக்கணம் மட்டுங் கூறிப் பெயர் எதுவும் கூறப்பெற்றிலது; பின்னையதிற் பெயர்மட்டும் கூறி இலக்கணம் எதுவும் விளக்கப்பட்டிலது. ஆசிரியர் இப்படி வாளா இலக்கணம் கூறிய முற்சூத்திரத்தில் தாம் விளக்க நினைப்பது வெண்கலியின் வேறுபாடே

ஆமெனில், அதனை விளங்கக் கூருது ஒழிவாரா ? செய்யுளியல் முழுதும் பாக்களுக் குத் தாம் கூறும் பகுதிகள் மீட்டும் வகைபெற்று வேறுபடு மிடந்தோறும், அவ்வாறு அவற்றுள் ஒவ்வொன்றும் இனைத்து வகைப்படும் எனவும், அவ்வகை ஒவ்வொன் றும் இன்ன இலக்கணம் உடையதெனவும் ஆசிரியர் விளக்கிப் போவதே நியதமா யிருப்பதைக் காண்கிறோம்.

"ஆசிரியம் வஞ்சி......நாலியற்றென்ப பாவகை விரியே" (சூத். 105) என வும், "ஒத்தாழிசைக்கலி......கலிநால் வகைத்தே" (சூத். 130) எனவும், "அவற் றுள், ஒத்தாழிசைக்கலி இருவகைத்தாகும்" (சூத். 131) எனவும் கூறிப், பின்ன தின் இருவகை இலக்கணத்தை முறையே "இடைநிலைப்பாட்டொடு" (சூத். 132) "ஏனைய ஒன்றே" (சூத். 138) எனவும், அவ் ஏனைய ஒன்றுன புறநிலை ஒத்தாழி சையை "அதுவே, வண்ணகம் ஒருபோகு என இருவகைத்தே" (சூத். 139) என வும், "ஒருபோகியற்கையும் இருவகைத்தாகும்" (சூத். 147) "கொச்சக ஒருபோகு அம்போதரங்கம் என்று" (சூத். 148) எனவும், இவ்வுட்பகுதிகளி னிலக்கணத்தை முறையே "வண்ணகம் தானே" (சூத். 140) "தரவின்றாகி......கொச்சக ஒரு போகு ஆகு மென்ப" (சூத். 149) "அம்போதரங்கம்" (சூத். 151) "எருத்தே கொச் சகம்" (சூத். 152) எனவும் நிரல் நிறையாகச் செவ்விய முறையில் தவிராது கூறிப் போந்த ஆசிரியர், கலிவெண்பாட்டு இருவகைத் தாமென்பது தமது கருத்தாயின் அதனைமட்டும் விளக்காமல் உரைகாரரை உய்த்துணர வையார்.

அஃதன்றியும், "தரவும் போக்கும்......வெண்பா இயலான் வெளிப்படத் தோன்றும்" என்பதில் தாம் கூறும் இலக்கணம் எதற்கு எனத் தெளியக் கூறும லும், "தோன்றும்" என்பதற்கு உரிய எழுவாய் அல்லது முதனிலையை மறைத்தும் மயங்கவையார். இந்நின்ற நிலையில் "தோன்றும்" என்பது பொருண்முடியாமல் பிறிதொரு சொல்லை அவாவி நிற்பது தேற்றம். இவையேயும் அன்றிப், "பாநிலை வகையே கொச்சகக்கலியென-நூனவில்புலவர் நுவன்றறைந்தனரே" என்பது தனிச்சூத்திரமெனின்,பொருளின்றி நின்றுவற்றும். 'கொச்சகக் கலியாவது பாநிலை வகையே' என்பதால் தெளியப்படுவது எதுவு மில்லை. பிற பாவகைகள் ஒவ் வொன்றற்கும் தனித்தனியே இலக்கணம் கூறி விளக்கின ஆசிரியர் ஈண்டுக் கொச் சகக்கலி வகைக்குமட்டும் இலக்கணம் கூருமைக்குக் காரணம் காண்டல் அரிது. இதில் இலக்கணம் எதுவுமின்றி வாளா கொச்சகக் கலியெனப்பெயரும், முன்ன திற் பெயரொன்றுமின்றி வாளா இலக்கணமுங் கூறினரெனக் கொண்டு, ஆசிரியர் முன்னதிற் கூருப்பெயர் "வெண்கலிப்பா" எனவும், பின்னதிற் கொச்சகக்கலிக் குக்கூரு இலக்கணம் "பாவின் நிலைவகை" எனவும் உரைகாரர்கள் கூறுவதில் பெறத்தகும் ஊதியம் என்னை ? மேலும் "பாநிலைவகை" எனுந் தொடர் எப்பாவின் எந்நிலை என்பதை விசதமாக்காமல் நிற்பதும் தெளிவே. ஆக்வே, "தோன்றும்" எனுஞ்சொல்லும், "பாநிலைவகை" எனுஞ் சொற்றொடரும் முடிவின்றித் தனித் தனி நின்று பொருள் குன்றுவதினும், அவை ஒன்றை யொன்று ஒன்றித் தழுவக் கண்டு, ஈண்டுச் சூத்திரம் இரண்டன்றி ஒன்றேயாக எல்லா அடிகளையும் இணைத்து

நோக்கின், பொருந்திய பொருளும் திருந்திய இலக்கணமும் மாணச்சிறந்து காணப் படும். இவற்றைத் தொடுத்துப் படிப்புழி முன்னதிற் கூறும் இலக்கணம் அமைந்து தோன்றும் பாநிலை வகையே கொச்சகக் கலியாம் என்பது இனிது பெறப்படும். எனவே, இதற்கு முற்கூறிய கலிவெண்பாட்டிலக்கணச் சூத்திரமும், இக்கொச்சகக் கலி யிலக்கணச் சூத்திரமும், இதன்பின் உறழ்கலி யிலக்கணச் சூத்திரமுமாக நிரலே நின்று, ஆசிரியர்முதலில் ஒத்தாழிசைக் கலிமுதல் தொகுத்துக்கூறிய கலிவகை நான்கும் மலைவின்றி முடிந்து அடைவே இலக்கணம் அடையக் காண்கிறோம்.

ஆகையால் இங்கு இஃது இவ்வாறு ஒரு சூத்திரமாய் நிற்பது கொண்டு, "தரவும் போக்கும் இடையிடை மிடைந்தும், ஐஞ்சீரடுக்கியும் அறுசீர்பெற்றும் வெண்பா இயலான் வெளிப்படத்தோன்றும் பாநிலை வகையே கொச்சகக்கலியென நூலறிபுலவர் விளக்கித் தெளித்தார்" என்ற செம்பொருள் கண்டு, மருளகற்றித் தெருளவைப்பதே இயலியையும் இலக்கணப் பயனோடு பொருணயமும் ஒருங்கு தருவதாகும்.

தொல். பொருள்:—

அகத்திணையியல் சூத். 52.

"முன்னைய நான்கும் முன்னதற்கென்ப."

இச்சூத்திரத்திற்கு நச்சினார்க்கினியர் தரும் பொருளாவது:— "இயற்கைப் புணர்ச்சிக்கு முன் நிகழ்ந்த காட்சியும் ஐயமும் தெரிதலும் தேறலும் என்ற குறிப்பு நான்கும் நற்காமத்துக்கு இன்றியமையாது வருதலின் முற்கூறிய சிறப்புடைக் கைக்கிளையாதற்குரிய என்று கூறுவர் ஆசிரியர், எ-று." இனி, இதன் கீழ் நச்சி னார்க்கினியர் கூறும் சில விசேட உரைப்பகுதிகளும் ஈண்டுக் கவனிக்கத் தக்கன: அவை யாவன "களவியலிற்கூறும் கைக்கிளை சிறப்பின்மையின், முன்னதற்குரிய எனச் சிறப்பெய்துவித்தார். களவியலுள் 'ஒத்த கிழவனும் கிழத்தியும் காண்ப' என்றது முதலாக இந்நான்கும் கூறுமாறு ஆண்டுணர்க" என்பன.

இவ்வுரை நுதலும் பொருள் இச்சூத்திரத்தால் தொல்காப்பியர் சுட்ட நினைத்த கருத்தாமா? இங்கு நச்சினார்க்கினியர் கருதுவது ஆசிரியருக்கு உடன் பாடாமேல், ஐயமகற்றி அக்கருத்தைப் பொருத்தமாக விளக்கும் சொற்பெய்து சூத் திரித்திருப்பர் அன்றோ? அஃது ஆசிரியர் கருத்தன்று என்பதை ஈண்டும் பிற இடங்களிலும் ஆசிரியரது சூத்திரச்சொற்போக்கே தெளிய விளக்குகிறது.

முதலில் ஒரே சூத்திரத்தில் ஈரிடத்தில் வரும் "முன்" என்னும் சொல் அவ்வீரிடத்தும் ஒரேவிதமாகப் பொருள்படவேண்டும். இலக்கண நூலாசிரியர், தம் சூத்திரச் சொற்களைப் பொருள் துணிதற்குதவாமல் மயங்க வைப்பனவாக யாத்தமையார். இச்சூத்திரமுதலில் "முன்னையநான்கும்" என்பதில் வரும் "முன்" என்பதைக் கீழே அல்லது பின் எனும்பொருள் குறிப்பதாகக் கொண்டு,

இடத்தால் பின்னே களவியலில் ஆசிரியர் கூறும் காட்சி முதலிய நான்கு எனவும், இரண்டாவதாய் "முன்னதற்கென்ப" எனவருமிடத்துள்ள "முன்" என்பதை மேலே அல்லது **காலத்தால், முன்னே** எனக் காலப்பொருண்மைத்தாகக் கொண்டு இச்சூத்திரத்திற்கு முன்கூறிய கைக்கிளை பெருந்திணைகளை விளக்கும் சூத்திரம் இரண்டனுள் "முற்கூறிய சிறப்புடைக் கைக்கிளைக்குரிய" என்று கூறி இங்கு நச்சினார்க்கினியர் இதன் பொருண்முடிவுசெய்கின்றார். எனவே, இவ்வொரு சூத்திரத்தில் இருமுறை வரும் "முன்" என்னும் ஒருசொல்லை முன்னுக்குப்பின் முரணுவதான—இருவேறு பொருளில் நூலாசிரியர் கூறியதாகக் கொள்ளநேருகிறது.

" ஆடி நிழலின் அறியத் தோன்றி
நாடுத லின்றிப் பொருள் நனிவிளங்க
யாப்பினுள் தோன்ற யாத்தமைப்பதுவே"

சூத்திரம் எனவும்,

" முதலும் முடிவும் மாறுகோ ளின்றி
...............பொருண்மை காட்டி
....
நுண்ணிதின் விளக்கலது
நூலெனப் படுவது"

எனவும் நூலுக்கும் நூலினுட் சூத்திரத்துக்கும் (செய்யுளியலில்) இலக்கணம் வகுக்கும் ஆசிரியர், தமது இலக்கண விதிக்கு விரோதமாகத் தாமே முன்பின் முரணிப் பொருள் நனிவிளங்காது படிப்பவர் மயங்குமாறு இச்சூத்திரத்தைத் தமது பேரிலக்கண நூலில் யாத்துவைத்தார் எனக்கொள்ளுஃது ஆசிரியர் நோக்கிற்கும் அவரது நூற்போக்கிற்கும் பொருந்துவதாமா? இங்கு இருமுறைவரும் "முன்" என்னும் சொல்லை ஈரிடத்தும் தெளிவான ஒருபொருளில் அமையாமல் மாறுன இருவேறு பொருள்தரக் கருதிக் கூறி யாரையும் மயங்கவைக்க ஆசிரியர் இச்சூத்திரம் யாத்தாராகார்.

இனி இரண்டாவதாக, ஆசிரியர் இங்கு "முன்னைய நான்கும்" எனக்குறிப்பன இதனையடுத்து விளக்கம் பெறாதனவாய்ப் பின்னே வெவ்வேறு பொருள் நுதலிய பலவேறு சூத்திரம் கடந்து வேறோர் ஒத்தில் வேறோர் சந்தர்ப்பத்தில் கூறப்போவன எனில், இங்கு அவர் சுட்டக்கருதிய நான்கையும் இவையென விளக்கியிருப்பர். இவ்வியலில் இச்சூத்திரம் படிப்பவரை இனிப் பின்வரப்போகும் வேறோர் இயலில் இத்தொகையின் வகை நான்கும் விளக்கப்படுமென எதிர்பார்க்கவைக்க எண்ணுவரேல் ஆசிரியர் விதந்து அதனை விளக்கியிருப்பர். அவ்வாறு அவர் கூறு விடத்து அக்கருத்தை அவருக்கேற்ற நினைப்பது முறையன்று. அண்மையில் வகைவிரிகள் கூறப்பெற்று, எளிதில் தெளிவும் துணிவும் தருதற்கு உதவும் இடத்தன்றிப் பிற இடங்களிலெல்லாம் ஆசிரியர் வாளா தொகைகூறி அமைவதில்லை. தொகை தரும் இடந்தொறும் அதன் வகைவிரியும் விளக்கிச் செல்வர்.

அதுவேயுமன்றிப், பின் களவியலிற் குறிக்கப்படுவதாக இவர் கொள்ளும் ஒரு கைக்கிளையை விலக்கி இங்குப் பெருந்திணைக்குமுன் ஆசிரியர் விளக்கிய கைக்கிளையைக் குறிப்பதற்கு "முன்னதற்கென்ப எனச் சிறப்பெய்துவித்தார்" என எடுத்து விளக்கினர் நச்சினர்க்கினியர். அதனை அடுத்துக் களவியலில் "'ஒத்த கிழவனும் கிழத்தியும் காண்ப' என்றது முதலாக இந்நான்கும் கூறுமாறு ஆண்டுணர்க", எனக்கூறி, "முன்னைய நான்கு" எனும் தொடரில் வரும் நான்கன் விவரம் குறியாமல் வாளா தொகைகூறிய நச்சினர்க்கினியர், களவியலில் அச்சூத்திரங்களுக்கு உரைதரு மிடத்து அவை எவையென விளக்கினரில்லை. அங்கு ஆசிரியர் "காட்சி, ஐயம், தெளிவு" என மூன்றே குறித்தமை காண்கிறோம். நச்சினர்க் கினியர் கூறுமாறு காட்சி - ஐயம் - இரண்டுந்தவிரத், தெரிதல் - தேறல் - என வேறிரண்டு கூட்டி நான்கு பகுதிகள், இயற்கைப் புணர்ச்சிக்குத் தலைவன் தலைவியர் இருவரின் உடம்படுதற்கான நாட்டம் இரண்டும் கூட்டியுரைக்கும் குறிப்புரைக்குமுன் நிகழ்வனவாக ஆசிரியர் கூறினரல்லர். ஆகவே களவியலில் தொல்காப்பியர் மூன்றே இன்றியமையா நற்காமக் குறிப்பாகக் கூறினராதலால், அவற்றை இங்குக் கைக்கிளைக் குறிப்பாமெனச் சுட்டகினைப்பின் "முன்னைய மூன்று" மென்னது "நான்கும்" என முறை பிறழ்ந்து கூறியிரார். ஈண்டு நான்கெனத் தெளியக்கூறுதலால் இந்நான்கும் பின் களவியலிற் பேசப்படும் மூன்றல்லாத வேறுதல் வெளிப்படை. இச்சூத்திரத்து அத்தொகையெண் குறிக்கும் நான்கு இவையென விளக்கப்பெறுததால், இதனேடியைந்து பொருள் தெளிதற்கு உதவுவதான நான்கன் வகை இச்சூத்திரத்தையடுத்து இவ்வகத்திணை யியலிலேயே விளக்கப் பெற்றிருக்க வேண்டுமென்பது எளிதில் தெளியப்படும். அவற்றை அறியின், சூத்திர மெய்ப்பொருளும் உடனறியப்படுவதாகும்.

இவ்வுண்மைகளை உணர்ந்த உரையாசிரியர் "முன்" என்பதற்கு இச்சூத்திரத்தில் ஈரிடத்தும் காலத்தால் முற்கூறப்பட்டதையே அமைத்துக்கூறும் கடன் மேற்கொள்வர். கொண்டு, இச்சூத்திரத்திற்கு முற்கூறிய பெருந்திணைப் பகுதியாகக் காட்டிய நான்கு நிலைகளில் ஒவ்வொன்றின் முன்னிலையும், இதற்கும் பெருந்திணைச் சூத்திரத்திற்கும் முற்கூறிய கைக்கிளைக்கும் பொருந்துமெனப் பொருள் கூறுவர். இவருரை "முன்" என்பதற்கு ஈரிடத்தும் ஓராங்கே பொருள் கூறும் பெற்றியளவில் குற்றமற்றது; நான்கெனும் எண்ணுக்கும் பொருந்துவது. எனில், பெருந்திணைப் பகுதிகளே தத்தம் முன்னைய நிலைகளில் கைக்கிளை ஆதற்கமையும் என்று இவர் கூறுவது, அதற்குமுன் கூறிய நான்கு அகத்திணைப் பொது இலக்கணக் குறிப்புக்களுக்கும், அவற்றின் பின்கூறப்படும் கைக்கிளை பெருந்திணைகளுக்குமுள்ள தொடர்பு விளக்கும் இயலியைபைக் கருதாத காரணத்தாலாகும். அதனல் இச்சூத்திரத்திற்கு இளம்பூரணர் உரையும் சிறவாதாகும்.

அன்றியும், உரையாசிரியர் கூறியவாறே கொள்ளின், பெருந்திணைப்பகுதி நான்கன் முன்னிலைகள் கைக்கிளை ஒன்றற்கே அமையுமென்னும் நியதியில்லை. அந்நிலைகள் ஒத்த காமத்திணைகளுக்கே சிறந்துரியவாம். ஆதலால் "முன்னதற்

கென்ப'' எனுந்தொடரை இங்குச் சிறிது முற்கூறிய கைக்கிளை ஒன்றற்கே உரியது போலக் கூறல் போலியிலக்கணமாகி முடியும். மடலேறுமல் 'ஏறுவேன்' எனத் தோழிக்குக் கூறி ''வெளிப்பட இரத்தலே-ஏறுமடற்றிறம்'' 'நலம் பாராட்டலே-இளமை தீராத்திறம்' ''புணரா இரக்கமே-தேறுத லொழிந்த காமத்துமிகாததிறம்'' ''நயப்புறுத்தலே-மிக்க காமத்து மாறுத்திறம்'' என உரையாசிரியரே இச்சூத்திரச் சிறப்புரையில் விளக்குகின்றுர். வெளிப்பட இரத்தலும், நலம்பாராட்டலும், புணரா இரக்கமும், நயப்புறுத்தலும் ஆய நான்கும் கைக்கிளையினும் ஒத்த காம ஐந்திணைக ளுக்கே இறப்பச் சிறப்புரிமை உடையவாகக் காண்கிறேம். ஆசிரியரும் அவ்வைந் திணைத் துறைகளை விளக்குமிடத்து இவற்றினையும் ஐந்திணைத் துறைகளோடு இயைத்துக் கூறுகின்றுர். ஆகவே, இந்நான்கையும் கைக்கிளைக்குச் சிறந்துரியவாக இங்குக் கூறுவது பொருந்தாது. அதனுலும் உரையாசிரியர் உரை இச்சூத்திரத்துச் சிறவாது.

இனி, இவ்வகத்திணையியலில் உரிப்பொருளான ஒத்த காமத்திணை ஐந்திற் கும், அகப்புறத்திணைகளான கைக்கிளை பெருந்திணை இரண்டிற்கும் இடையில் ஆசி ரியர் கூறி யமைத்திருக்கும் குறிப்புக்கள் நான்கு உள. அவை ஒத்த காமத்திணை ஐந்திற்கே உரியனவா? அன்றி, அவற்றேடு பின்னர்க் கூறும் அகப்புறத்திணைகள் இரண்டிற்குந் தொடர்புடையனவா? எனத் தெளிப்பது ஈண்டு இவ்வியலில் அகத் திணைகளின் பொது இலக்கணங்களைக்கூறி முடிக்குமுன் இன்றியமையாததாகும். ஆகவே, இச்சூத்திரத்தால் ஆசிரியர் அவ்விஞவுக்குரிய விடையிறுத்து விளக்கலா யினர், என்பதை இனி இங்குத் தெளிதல் எளிது. இச்சூத்திரத்தில் ''முன்னதற் கென்ப'' என்பது காலம்பற்றி முன்னதையே குறிப்பதாகக் கொண்டு, இதற்கு முற்கூறிய இரண்டனுள் பெருந்திணைக்கு முன்னதான கைக்கிளையைச்சுட்டும் என்று நச்சிஞர்க்கினியரும் பிற உரைகாரரும் பொருள் காணுதலால், அம் முறையே இச்சூத்திரத்தில் வரும் ''முன்னைய நான்கும்'' என்ற சொற்றொடரும் காலத்தால் இதற்கு முற்பகுதியில் கூறப்பெற்ற நான்கே யாதல் வேண்டும் என்பது தேற்றமாகும். அவ்வாறு நான்கு குறிப்புக்கள் பெருந்திணை கைக்கிளைகளை விளக் கும் இருசூத்திரங்களுக்கும் முன் கூறப்பெற்றுள. ஆதலால் அவற்றையே இங்கு ''முன்னைய நான்கும்'' என்று சுட்டக்கருதினர் ஆசிரியர் எனத் துணிவது தவரு காது. அவற்றின் விவரமும் பொருத்தமும் இங்கு இனி ஆராய முயல்வோம்.

கைக்கிளை பெருந்திணைகளின் இலக்கணம் கூறும் முன்னும், அன்பினைந் திணைகளின் பொது இலக்கணப்பகுதி கூறிமுடிந்தபின்னும் அவ்வைந்திணைகளுக் குப் பெருவரவினவாய் வந்துதவும் நான்கு செய்திகளைப்பற்றி விதிமுகத்தானும் விலக்கு வகையானும் ஆசிரியர் விளக்கிச் சில சூத்திரம் யாத்துளர் என மேலே சுட்டினேம். அவை

1. ''நிகழ்ந்தது நினைத்தற் கேதுவாதல் (சூத். 43)
2. ''நிகழ்ந்தது கூறி நிலையல் (சூத். 44)

3. "மரபுநிலை திரியாது விரவும் பொருள் விரவல் (சூத். 45)

4. "உள்ளுறை உவம ஆட்சி (சூத். 46 முதல் 49 வரை)

என்ற நான்கும் ஒத்த காமத்திணை ஐந்திற்கும் ஒத்து வழங்கப் பெறும் பொது இலக்கணங்களாக ஆசிரியர் கூறக்காணுகிறோம். இந்நான்கிலக்கணங்களும் அன்பினைந் திணைகளுக்கும் உரியவாதலே யன்றி அகப்புறத்திணைகளிரண்டனுள் முற்கூறப் பெறும் கைக்கிளைக்கும் ஒத்த உரிமை உடையனவாகும்; பெருந்திணைக்கு அவ்வாறு அமைந்தியையா என்பதை வரையறுத்துக் காட்டக்கருதிய ஆசிரியர் அவ்வகப்புறத் திணைச் சூத்திரம் இரண்டற்கும் பின்னர், புறனடையாக அக்கருத்தை விளக்க இச் சூத்திரம் பெய்துவைத்தார். இத்தொடர்பியைபுகளை நன்குணர்தற்கு இவ்வகத் திணை இயலில் ஆசிரியர் கூறும் சூத்திரத்தொகை வகைகளின் வைப்புமுறைப் பாகு பாடுகளை உய்த்துணர்தல் அவசியமாகும்.

இவ்வியலில் முதற் சூத்திரத்தால் அகத்திணை ஏழென ஆசிரியர் தொகுத்து விளக்கினர். இரண்டாம் சூத்திரத்தால் அத்திணைகள் ஏழனுள் முதலும் இறுதியும் ஆய கைக்கிளை பெருந்திணையெனக் குறித்த அகப்புறத்திணை இரண்டும் கழித்து இடைநின்ற ஐந்தும் ஒத்த காம உரித்திணைகள் என்றும், அவ்வைந்தின் நடுநின்ற பாலையொழிய மற்றைய நான்கும் குறிஞ்சிமுதலிய நானிலங்களுக்கும் முறையே சிறப்புரிமையுடையன என்றும் கூறினர். பிறகு "முதல் கரு உரி" யெனும் மூன் றுஞ் சூத்திரமுதல் "எஞ்சியோர்க்கும்" எனும் நாற்பத்திரண்டாஞ் சூத்திரம்வரை அந்நடுவணைந்திணைகளின் பாகுபாடுகளும், அவ்வவற்றின் சிறப்பிலக்கணங்களும் வகைபெறக்கூறினர். பிறகு "நிகழ்ந்தது நினைத்தற்கு" எனும் 43 ஆம் சூத்திர முதல் "ஏனை உவமம்" எனும் 49 ஆம் சூத்திரம் வரை அவ்வைந்திணைகளுக்கும் வந்து பயிலும் சில பொது இலக்கணங்களைக் கூறி முடித்தார். பிறகு "காமஞ் சாலா" எனும் 50 ஆம் சூத்திரத்தில் கைக்கிளையையும், அதன் பிறகு "ஏறிய மடற் றிறம்" எனும் சூத்திரத்தில் பெருந்திணையையும் விளக்கினர். அவற்றின் பின் "முன்னையநான்கும்" என்னும் இச்சூத்திரத்தை நிற்கவைத்தார். இவற்றுள் மூன் றும் சூத்திரத்தால் அன்பினைந்திணைகளும் முதல், கரு, உரியென முறையே வகை பெறும் எனக்கூறி அவ்வகைகளை விளக்கப்புகுந்தவர் "புணர்தல் பிரிதல்" எனும் 14 ஆம் சூத்திரத்தில் உரிப்பொருள்களை வகுத்து, அதுமுதல் "எஞ்சியோர்க்கும்" எனும் 42 ஆம் சூத்திரம்வரை அவ்வுரிப்பொருள்களுள் ஒவ்வொன்றன் தனிச்சிறப் பிலக்கணங்களையும் அத்திணையில் நிரலே வகைபட விளக்கினர்.

இவையெல்லாம் அன்புரித்திணைகள் ஐந்தில் ஒவ்வொன்றற்கே சிறப்புரிமை யுடையனவாதல் கூறி இவற்றின்பின் "நிகழ்ந்தது நினைத்தற்கு" (சூத். 43) முதல் "ஏனையுவமம்" (சூத். 49) வரை ஏழு சூத்திரங்களுள் இறுதிநான்கில் உள்ளுறை யுவமம் ஒன்றும், முதல் மூன்று சூத்திரங்களில் தனிவேறு மூன்றுமாக நான்கு பொது இலக்கணக் குறிப்புக்கள் ஒத்த காமத்திணை ஐந்திற்கும் ஒத்த இயைபும் தொடர்பும் உடையனவாக ஆசிரியர் தெள்ளிதிற் கொள்ளவைத்தார். இவற்றுள், முதலிரு சூத்திரங்களைப் (சூத். 43-44) பாலைக்கே உரியனபோல உரைகாரர் கொண்டு கூறும்பொருள் பொருத்தமற்றதாம்.

"இரண்டறி களவில் நங்காதலோளே
..............கான நாறவந்து
நள்ளென் கங்குல் நம்மோரன்னள்
கூந்தல் வேய்ந்த விரவுமலர் உதிர்த்து
....
அமரா முகத்த ளாகித்
தம்மோரன்னள் வைகறையானே"

எனத் தலைவிபால் நிகழ்ச்சி தலைவன் தன்னுள் நினைத்தற்கு ஏதுவானதைக் கூறும் குறுந்தொகை 312 ஆம் பாட்டும்,

"அம்ம வாழிதோழி..... ....
மாற்றலம் யாமென மதிப்பக்கூறி
நப்பிரிந்துறைந்தோர், மன்றநீ
விட்டனை யோஅவ ருற்ற சூளே"

என முன் தலைவன் நிகழ்த்திய சூளைத்தோழி தலைவியை நினைக்கச்செய்ததைக் கூறும் ஐங்குறுநூற்று 227 ஆம் செய்யுளும் பாலைபற்றிய அல்ல. ஈரிடத்தும் இவை குறிஞ்சியில் நிகழ்ந்தது நினைத்தற்கு ஏதுவானதையே குறித்தன. "மின்னொளிர் அவிரறல்" என்னும் குறிஞ்சிக்கலி 19 ஆம் பாட்டும் அனையதகைத்தே. இனி, "தீம்பால் கறந்த கலமாற்றி" எனவரும் முல்லைக்கலி 10 ஆம் செய்யுளும், "கொடியவும் கோட்டவும்" எனவரும் குறிஞ்சிக்கலி 18 ஆம் செய்யுளும் தலைவி முன்னிகழ்ந்தது கூறி நிலையலை உணர்த்துவன. இவை முறையே முல்லையினும் குறிஞ்சியினும் வந்தன. இவ்வாறே இவ்விரு சூத்திரக் குறிப்புக்களும் உரைகாரர் கூறுமாறு பாலைக்கே தனியுரிமை கொள்ளாதே ஐந்திணை அனைத்திற்கும் வந்து பயிலும். "மரபுநிலை திரியா மாட்சிய வாகி விரவும் பொருளும் விரவுவதும்", உள்ளுறையுவமம் பயிலுவதும் ஒத்த காமத் திணை அத்தனைக்கும் ஒத்த உரிமையோ டொன்றிப் பயிலும் என்பதை உரைகாரருமே ஒப்புக்கொள்கின்றனர். அதனால், அவற்றிற்குதாரணம் கூறல்வேண்டா.

இனி

1. (முன்) நிகழ்ந்தது (பின்) நினைத்தற்கு நிமித்தமாதல்,
2. (முன்) நிகழ்ந்தது கூறி அதன்வழித்துணிவுற்று
   நிலையுறுதல் உரிப்பொருளாம் ஒழுக்கமாதற் குரித்து,
3. "திணைமயக்குறுதலும் (சூத். 12)
   "உரிப்பொருள் அல்லன" (சூத். 13)

ஆகிய இச்சூத்திரங்களில் அமையாமல் அகத்திணைகளுக்கு உரியவாய் விரவும் பிறபொருள்களும், மரபுநிலைதிரியாது மாட்சிப்படுமிடத்து மயங்கிவருதல்,

4. அகனைந்திணைகளுக்கு உள்ளுறையுவமம் சிறப்பாய் வருதல்,

என்ற இந்நான்கும் அகப்பகுதியில் அன்பினைந்திணைகளுக்குப் பொது இலக்கண மாதலை அவ்வைந்திணை இலக்கணப்பகுதி இறுதியில் ஆசிரியர் விதந்து விளக்கி வைத்தார். ஊன்றி நோக்கின், இந்நான்கும் நடுவணைந்திணைகளுக்குச் சிறந்துரிய வாதல்போலவே புரைதீர்ந்த செந்திறக் கைக்கிளையின்கண்ணும் சிறந்து பயிலும் என்பதை உணரலாகும். அதனால், இவற்றின்பின் கைக்கிளை பெருந்திணைகளை எடுத்துக் கூறிய ஆசிரியர், அவற்றின்பின் கூறும் "முன்னைய நான்கும்" என்னும் இப்புறனடைச் சூத்திரத்தால் பெருந்திணைக்கு முற்கூறிய கைக்கிளைக்கு, அவ் விருதிணைக்கும் முற்கூறிப்போந்த மேற்கண்ட நான்கும் உரியவாகும் என்ற உண்மையை வற்புறுத்துவாராயினர்.

புணர்தல், பிரிதல் முதலிய ஒத்த காமத்திணைகளில், முன் நிகழ்ச்சியொன் றை உரியவிடத்துப் பின் நினைத்தல் முறையான துறையாகும். அதுவேபோல், குற்றமற்ற செந்திறக் கைக்கிளையிலும் நேரிய ஒருதலைக் காமமுடையான் காமஞ் சாலா இளையள்மாட்டுக் காதல் கூர்ந்து, ஏமஞ்சாலா இடும்பையெய்தித் தன்னொ டும் அவளொடுந் தருக்கிய புணர்த்துச், சொல்லி இன்புறூஉம் காலத்து முன் நிகழ்ச்சி நினைத்தற்கு ஏதுவாதல் இயலியையும் இன்பமும் பயக்கும். ஆனல், நோந் திறப் பெருந்திணையில் நோதக்க முன் நிகழ்ச்சிகளை நினைப்பது இடும்பையன்றி இன்பந்தராதாகையால், நிகழ்ந்தது நினைத்தல் பெருந்திணைக்கு அத்துணையாய்ப் பொருந்தாமை வெளிப்படை. பிற மூன்றும் இவ்வாறே ஒத்த காமத்திணைகளிற் போலக் கைக்கிளையினும் சிறந்துவருதலும், பெருந்திணைக்கு மாட்சிமைப் படாமை யும் சிந்திப்பார்க்குத் தெளிவாகும். ஆதலால், இச்சூத்திரச் செம்பொருள் இதுவே யாதல் தெளியப்படும்.

தொல். பொருள். புறம். சூத். 27.

"வழங்கியல் மருங்கின் வகைபட நிலைஇப்
பரவலும் புகழ்ச்சியும் கருதிய பாங்கினும்
முன்னோர் கூறிய குறிப்பினும் செந்துறை
வண்ணப் பகுதி வரைவின் றாங்கே"

இனி, இச்சூத்திரத்திலும் நச்சினார்க்கினியர் "வண்ணப்பகுதி" என்னும் செந்தமிழ் இயற்சொற்றொடருக்கு நேரிய செம்பொருளை விலக்கி, வண்ணமென் பதை "வருணம்" என்னும் வடமொழி திரிந்த சிதைவுச்சொல்லாகக் கொண்டு "வண்ணப் பகுதி வரைவின்றாங்கே" என்பதற்கு "வருணங்களின் கூறுபாடு நிகழ்ந்தன நீக்கு நிலைமையின்று" எனப்பொருள் கூறுவது புதிது நுதலும் விபரீத வுணர்வு காரணத்தாலாகும். "வண்ணமென்பது (தமிழ்) இயற்சொல்" என்று அவரே தெளிந்து கூறினர் ; எனினும் சூத்திரத்தில் அச்சொற்குப் பிறழ உரைகூறு வார். இஃது அவர்மனப்பாங்கிருந்தவாறும்.

பட்டாங்கே இயலமைப்பில் நிரல் நிரையே சொற்கிடந்தவாறு கண்ணழிவு பண்ணில், இச்சூத்திரச் செம்பொருள் எளிதில் தெளியக்கிடைக்கின்றது. அதை

விலக்கிச் சுண்ணம் மொழிமாற்று முதலிய அரியமாட்டேற்று இலக்கணங்களால் கலக்கி, எவ்வாற்றானும் ஒவ்வாப் புதுப்பொருள் காணமுயலும் அவர் விருப்பத்தை விட்டு, நேரியபொருளை ஆராய்வோமாக. "அமரர்கண் முடியும் அறுவகையானும்" என்ற மேலைச் சூத்திரத்தால், பாடாண்டிணை யிலக்கணம் பகர்ந்த ஆசிரியர், அதை அடுத்து இச்சூத்திரத்தில், "அப்புறத்திணைக்குரிய பாக்களேயன்றி, அதிற் சில துறைகளுக்குச் செய்யுளியலில் பிற பொருளுக்குச் சிறப்புரிமை யுடைத்தாய்க் கூறப்பெறும் சில பாட்டுவகையும் விலக்கப்படுதலில்லை" என்ற புறனடையையோ சிறப்பிலக்கணத்தையோ கூறலாயினர்; இஃது இச்சூத்திரத்தின் இடம் சொல் அமைப்புக்களால் வெள்ளிடை மலைபோல் தெள்ளத்தெளியக் கிடக்கின்றது. "பாடாண்" என்பது மக்களுட் பெருமைக்குச் சிறப்புரிமை பூண்ட சிற்சில தலைவரின் பெருமை கூறும் புறத்திணையாகும். தெய்வத்துக்குப் பெருமை இயல்பாகலானும், தெய்வங்களையும் சிறப்பித்துப்பாடும் இலக்கணத்தை மக்களின் புறவாழ்வு பற்றி வகுத்துரைக்கும் புறத்திணை இலக்கணப்பகுதியில் இணைப்பது இயல்பன்மையானும், தெய்வம் சுட்டற்கு இன்றியமையா இடங்களிலெல்லாம் ஆசிரியர் அக்கருத்தை வெளிப்படக் கூறிச் சூத்திரித்துப் போவதாலும், அவ்வாறு விதந்து கூறாத சூத்திரத்துக்கு மக்கட்பாடாண் பற்றியதாகவே பொருள் காணுவது முறையாகலானும், ஈண்டு இப்பாடாண்பகுதியின் முதல் மூன்று சூத்திரங்களில் தெய்வம்பற்றிய குறிப்பு எதுவும் கூறப்பெறுமையானும், இம்மூன்று சூத்திரங்களுக்கும் அவற்றின் சொற்கிடந்தவாறே செம்பொருள் காணுவது தமிழ்வாணர் கடமையாகும்.

மேலைச் சூத்திரத்தில், ஆசிரியர், பொருநர் அல்லது வீரரைப்பற்றியனவும் முன்னர்க் கூறியனவுமாய வெட்சிமுதல் காஞ்சி யிறுவாயான ஆறுபுறத்திணைகளின் அடியாகவும், பழிக்கப்படும் பொருந்தாக்காமப் பெருந்திணையொன்றை ஒழித்து ஒழிந்த குற்றமற்ற கைக்கிளை முதலாமுற்கிளந்த அறுபேரகத்திணைகளின் அடியாகவும், பொருந்து மிடத்துப் பொருத்துமுறையால் பாடாண் திணைவகைகள் பிறக்குமென இலக்கணம் வகுத்துத்தந்தார். அவ்வாறு பாடாண் பிறக்குமிடமும் அதன் துறையும் பலப்பலவாம். அவையெல்லாம் இயற்பாவினங்களால் அமைந்து விளங்கும்; எனினும், "அப்பாடாண் வகையுள்,

1. 'வழங்கியல் மருங்கின் வகைபட நிலை இப்
பரவலும் புகழ்ச்சியும் கருதியபாங்கினும்'

(2) 'முன்னோர் கூறிய குறிப்பினும்,' இயற்பாக்களே அன்றி இசைப்பகுதியாகிய "செந்துறை வண்ணச்" செய்யுட்பகுதியும் வரையப் படாது வந்து வழங்கும்," என்பதே சூத்திரத்தின் செம்பொருளாகும். இதில் ஆசிரியர் கூறக்கருதியதும் இதுவே ஆமென்பது சூத்திரச் சொல்லமைப்பால் தெளிவாகும். இச்சூத்திரச் சொற்றொடர்களின் பொருள் வெளிப்படையாகலின் இதற்குப் பதப்பொருள் விரித்துரைத்தல் வேண்டா. நாடகத்தமிழுக்கு "வெண்டுறைச் செய்யுளேபோல, இசைத்தமிழுக்குச் செந்துறை மார்க்கச்" செய்யுள்களாம். இச்செந்துறை மார்க்கச் செய்யுட்களுள், இனிய சந்த வேறுபாடுகளை

யுடைய வண்ணவகைகள் இயற்றமிழில் இசைக்கினிய சிறப்புரிமை உடையவாகும். இஃது உரைகாரருள்ளிட்ட எல்லாத் தமிழிலக்கண நூலார்க்கும் ஒப்பமுடிந்த தொன்றே. செய்யுளியல் 241-242-212 ஆம் சூத்திரங்களின் கீழ், பேராசிரியர், நச்சினார்க்கினியர் இருவரும் கூறும் விசேடக்குறிப்புக்களானும், இப்புறத்திணைச் சூத்திரத்தின்கீழ்த் தம் உரையினிறுதியில் நச்சினார்க்கினியர் தரும் எடுத்துக்காட்டானும் இவ்வுண்மை வலியுறுகின்றது.

இது கண்டுவைத்தும், நச்சினார்க்கினியர் இந்நேரிய பொருளை மறுக்கின்றது வியப்பைத்தரும். இதனை மறுத்தற்கு அவர் கூறும் இரு காரணங்களும் பொருத்தமற்றன என்பது அக்காரணவாயிலானே பெறப்படும்.

அவர் கூற்று வருமாறு:—

" (1) இவை செந்துறைமார்க்கத்து வண்ணப்பகுதியாகிய பாடல்பற்றி வரும் என்பதூஉம், வெண்டுறை மார்க்கமாகிய நாடகத்துள் அவிநயத்துக்கு உரியவாகிவரும் என்பதூஉம் கூறின், அவை ஈண்டுக்கூறல் மயங்கக்கூறலாம். (2) அன்றியும் ஏனை அறுவகைத்திணைக்கும் இங்ஙனம் கூறாது இத்திணைக்கே உரித்தாகக் கூறுதற்கு ஓர் காரண மின்மையானும், அங்ஙனம் கூறாரென்ப"

(1) இவற்றுள் முதலது இடம்பற்றியது. இப்பொருள் அறவே பொருந்தாது என்பது இவர்கருத்தன்று. பொருந்துவதான இச்செய்தியைச் செய்யுளியலிற் கூறாமல் இவ்வியலிற் கூறுவதுதான் இவருக்குடன்பாடில்லை.—

இச்சூத்திரச் சொற்றொடர் இப்பொருள் தருமென்பது இவர் அதனைக்கூறி மறுக்க முயல்வதானே விளங்கும். இப்பொருள் பொருந்துமெனின், இதனைச் செய்யுளியலில் அமைத்தல் கூடுமெனினும், ஈண்டுக்கூறியதால் வரும் ஏதம் இல்லை. ஓரிடத்தில் கூறலாவதொன்றைப் பிறிதிடத்தில் வைத்தலால் தவறாகக் கருதற்கில்லை. அன்றியும், இச்செய்தி தன்னளவில் தவறற்றதாய்த் தெளியப்படுவதெனில், ஈண்டு அதுகூறப்படுதலால் வரும் மயக்கமென்னை? இச்சூத்திரத்தொடரில் எது எதனால் எவ்வித மயக்கம் தரத்தக்கது என்று நச்சினார்க்கினியர் கூறினாரில்லை. எனவே, கூறத்தகும் மயக்கம் இல்லை என்பதே தேற்றம். பிறரை மயங்கவைப்பது இவர் கருத்தாகலாமன்றி, ஆசிரியர் சூத்திரத்தில் மயக்கமெதுவும் இவரும் கண்டாரில்லை.

இடம்பற்றி இச்செம்பொருளை மறுக்கும் இவர் கூற்றை இன்னும் சிறிது ஆராய்வோம். புறத்திணை இலக்கணம் கூறும் இவ்வியலில், அத்திணைகளுக்குரிய பாட்டுவகை கூறல் பொருந்தாதென்பதே இப்பொருளை மறுத்து இவர் இச்சூத்திரத்துக்கு வேறு பொருந்தாப் புதுப்பொருள் காணும் முயற்சி மேற்கொண்டதற்கு இவர் காட்டு முதற்காரணம்.

பொதுவகையில் திணை துறைகளுக்குரிய பாவகைகளை அவ்வத்திணை துறைகளை அடுத்து எடுத்துக்குறித்தற்கு அவசியமில்லை. ஆசிரியரும் அவ்வாறு கூறினா

ரல்லர்; எனினும், ஒருதிணையின் சில துறைகளுக்குமட்டும் அத்திணைக்குரிய பாவகைகளோடு, அனையதிணைகளுக்கு வழங்கப் பெறாததும், பிறிதொன்றற்கே சிறந்து பயில்வது மானதோர் பாவகை வரையப்படாமல் வந்து வழங்குமெனின், அவ்வுண்மையை அத்திணையின் வகைதொகைகளைக் கூறுமிடத்திலேயே புறனடையாக விளக்கிப்போதல் அமைந்த தெளிவுதவுவதன்றி மயங்கவைக்கும் தவறாகாது. இவ்வாறு ஒரோ சூத்திரப்பொருளுக்கு இயைபுடைய பிற செய்திகளையும் தொடர்பு கருதி உடன் கூறிவைப்பது தொல்காப்பியத்தும் மற்றும் இலக்கண நூல்களிலும் பயிலக்காணும் இயல்முறையன்றிப் பொருந்தாப் புதுமையன்று.

உதாரணமாக, தொல்காப்பியர் செய்யுளிலக்கண மெல்லாம் ஒருங்குகூறும் செய்யுளியல் ஒன்று தனியாக இயற்றி வைத்திருக்கவும், செய்யுள்வகைகளான கலியும் பரிபாட்டும் அகத்துறைகளுக்குச் சிறப்புரிமையுடைய என்பதை, அகத்திணை 53 ஆம் சூத்திரத்தில்,

"கலியே பரிபாட்டா யிருபாங்கினும் உரியதாகும் என்மனார் புலவர்" எனப் புறனடையாக விதந்தோதுகின்றார். அகவலும் வெண்பாவும் வஞ்சியும் புறத்திணைகளுக்கும், கலியும் பரிபாட்டும் அகத்திணைகளுக்கும் பொதுவாகப் பயின்றுவருவதுடன், அகத்திணை யேழனுள்ளும் கைக்கிளை பெருந்திணைகளுக்கு வெண்பாவும் அகவலும் அமையுமெனவும் விளக்கிக்கூறும் இவ் ஆசிரியரே அகத்திணையியல் 53 ஆம் சூத்திரமும் யாத்து, நடுநின்ற அன்பினைந்திணைகளுக்குச் சிறப்பியைபு நோக்கி அத்திணை துறைகளுக்கு சிறப்புரிமையுடைய கலிபரிபாட்டான இருபாவகைகளையும் அத்திணைகளின் பொது இலக்கணம் கூறும் அகத்திணை இயலிலேயே அவற்றினுடன் எடுத்தோதிப் புறனடையாக்கினது தெளிவும் துணிவும் தருதற்கன்றி, மயக்கமும் கூறியதுகூறலுமாய தவறுபயத்தற்கில்லை, என்பது தேற்றமன்றோ ?

இதுவேபோல் இன்னும் "உவம இயல்" இலக்கணமெல்லாம் தொகுத்து "உவம இயல்" என வேறுதனி இயல் ஒன்று வகுத்து விளக்கிய தொல்காப்பியர், உவமப்பகுதியான உள்ளுறையுவம இலக்கணமனைத்தையும் அஃ்வியலிலேயே அடக்கியமையாமல் பொருளியலில் உள்ளுறை இறைச்சிவகைகளை இறப்பச் சிறப்புவகையான் விரித்துரைத்தார். இதுவும் போதாமல் ஆசிரியர், அகத்திணைகளின் பொது இலக்கணம் கூறும் அகத்திணை இயலிலும் அகத்திணையேழனிடையே உள்ளுறையுவமம்பற்றி நான்கு சூத்திரம் செய்து வைத்திருப்பது தவறும் மயக்கமும் ஆகுமா ? அவ்வாறு சூத்திரித்தது குற்றமென்று கொள்ளாமல் அமைவுடைத்தாகக் கருதி நச்சினார்க்கினியரும் ஆண்டைச் சூத்திரங்களுக்கு உரிய நேரிய பொருளே கூறுகின்றார். அதனால் எவ்விதமயக்கமும் யாருக்கும் என்றும் எழுந்ததாயில்லை. எனவே, இவ்வாறு தகுமிடங்களில் ஒன்றற்கியைபுடைய பிற சிலவும் அதனுடன் ஓதப்பெறுதல் தவறற்ற இயல்வழக்கென்பது மலையிலக்காம்.

(2) இனி, இதுபற்றி நச்சினார்க்கினியர் கூறும் இரண்டாம் காரணமும் பொருளற்றதென்பது மேலைய ஆராய்ச்சியானே விளங்கும் எனினும், இங்கு அதனைச்

சிறிது துருவி ஆராய்வாம். அகம் புறம் இவற்றின் திணைதுறைகளுக்குப் பொதுவுரிமை உடைய பாவகைகள் செய்யுளியலில் பொதுப்படக் கூறப்பெறும். அதனால் புறத்திணை ஒவ்வொன்றற்கும் வரத்தகும் பாவகைகளை அவ்வத்திணை தோறும் உடனெடுத்தோதற்குக் காரணமில்லை. அதனால் ஆசிரியர் அவ்வாறு கூறினாரல்லர். இப் புறத்திணை இயல் இறுதியில் வைத்த பாடாண் திணைக்கும் இன்னபாவகை எல்லாம் வருமென ஆசிரியர் கூறவுமில்லை. எனில், பாடாண் திணையின் சிறுபகுதிக்கு அதன் பிற பகுதிக்கும், பிற புறத்திணைகளுக்கும் வாராத ஒருபாவகை வரைவின்றிவந்து வழங்கும் செய்தியை, அதன் அமைவுநோக்கி, இவ்வுரிய இடத்தில் இப்புறனடைச் சூத்திரத்தால் விளங்கவைத்தார். இது தெளிவும் துணிவும் தரும் இயல்முறையேயன்றி மயக்கம்-பொருந்தாமை முதலிய பயக்கும் குற்றமாகாது. இனி, அகத் துறைகட்குக் கலியும் பரிபாடலும் சிறப்புரிமையுடைய என்பதை அகத்திணையியலிறுதியில், எழுகத்திணைகளையும் கூறி முடித்தபின்னரே "நாடகவழக்கினும்" எனும் 53-ஆம் சூத்திரத்தால் விளக்கிய ஆசிரியர், அவ்வாறே புறத்திணையியலிறுதியில் செந்துறைப்பாட்டுக்களைப்பற்றிய இச்சூத்திரத்தை யமைப்பதைவிட்டுப் பாடாண் பகுதியிடையில் இது கூறுவ தேனெனின், சொல்லுவன்.

அகத்திணைகளுக்கெல்லாம் கலியும் பரிபாடலுமுரியவாகலின், அகத்திணையியலிறுதியிலதைச் சூத்திரித்தார். மற்றைய பாட்டுக்கள் எல்லாப் புறத்திணைகளுக்கும் பொதுவாய்வருமென்பதைச் செய்யுளியலிற் கூறுதலின், ஈண்டுக்கூறாது விடுத்தார். ஆனால், செந்துறைப்பாட்டுவகை எல்லாப்புறத்திணைகளுக்கும் பயிலாமல், பாடாண்டிணையிலும் "பரவலும்புகழ்ச்சியு" மான பகுதிக்குமட்டுமே பொருந்துமாகையால், அதைச்சுட்டிய இச்சூத்திரத்தைப் புறத்திணைகளுக்கும் பொதுவெனக்கொள்ளாவண்ணம் பாடாணிலக்கணப் பகுதியொடு பொருந்த ஈண்டுக் கூறினா ரென்ப துணரத்தக்கதாம்.

எனவே, நச்சினார்க்கினியர் காட்டும் இருகாரணங்களும் பொருத்தமும் பொருளும் அற்றன. அவைகருதி, இச்சூத்திரச் சொற்றொடர் சுட்டும் நேரியபொருளை விலக்கிப், பொருந்தாப் புதுப்பொருள் கற்பித்து வற்புறுத்து முயற்சி நச்சினார்க்கினியரே மேற்கொள்ளினும், அதுபோற்றற் பாற்றன்று என்பது இனிது விளங்கும். எவ்வாறாயினும் பாடாணிலக்கணப்பகுதியில் ஜாதிபேத ஏதவேறுபாடுகளையும், "பிறப்பொக்கும் எல்லா உயிர்க்கும், பிறப்பன்றிச் செய்தொழில் வேற்றுமையொன்றால் மட்டும் தம்முட் சிறப்பொவ்வா" எனும் தமிழ் மரபொடு முரணும் வருணங்களின் உயர்வு தாழ்வுகளின் கூறுபாடுகளையும் தமிழரின் புறவொழுக்கம் கூறும் இப்புறத்திணையிற் புகுத்த முயன்று இடர்ப்படுவதினும், பிறபுறத்திணைகளுக்கும், அப்பாடாண் திணையின் பிறபகுதிகளுக்கும் பயின்று வராத வண்ணப்பாக்கள் பாடாண் திணையின் இப்பகுதிகளுக்கு வரையப்படாத விலக்குவிதியைப் புறனடையாக ஆசிரியர் விளக்கும் உண்மை தேர்தல் மிகவும் பொருத்தமும் பயனும் உடைத்தாம் என்பதில் ஐயமில்லை.

தொல். பொருள் சூத். 83-84.

" காமப்பகுதி கடவுளும் வரையார்
ஏனோர் பாங்கினும் என்மனார் புலவர்" (புறம்-28)
" குழவி மருங்கினும் கிழவ தாகும் " (ஷை-29)

இவ்விரு சூத்திரங்களும், பாடாண் திணையின் ஒருபகுதி சிறுவரவிற்றாகத் தெய்வம்பற்றியும் குழவிபற்றியும் அமையும் என்பதோர் புறனடை கூறுவனவாகும் பொதுவாகப், பொருளிலக்கணமெல்லாம் மக்களின் அகத்தும் புறத்துமாய ஒழுக்கங்களைப் பற்றியனவே யாகும். புறத்திணை யேழனுள் இறுதியிற் கூறப்பெறும் பாடாண்-"மறனுடை மரபின்" மக்கட்டலைவர் மேற்றாய், ஒன்று " அமர்கொண் மரபின்" அறுபுறத்திணைகளை அடிக்கொண்டெழும்; அன்றேல், புரைதீர் காமத் திணைதுறைகளின் சார்பாக எழும், என்று அதன் இலக்கணத்தை மேலே "அமரர் கண்முடியும்" என்ற சூத்திரத்திற்கூறி விளக்கிய ஆசிரியர், அதனை அடுத்த "வழங்கியல் மருங்கின்" எனும் சூத்திரத்தில் அப்பாடாண் திணையின் சிலதுறைப்பகுதிகளுக்குச் செந்துறை வண்ணப் பாவகைகள் வரையப்படாமல்வந்து பயிலுமென்ற புறனடை விதிகூறி, அதன்பின் இவ்விருசூத்திரங்களில் தாம் முதலிற்கூறிய இலக்கணத்தால் விலக்கப்படாமல் அமைத்துக் கோடற்குரிய புறனடைகளைக் கூறிப் போந்தார். எனவே, பொதுவாக வீரம்பற்றிய பாடாண் மக்கட்டலைவர் மேற்றேயாகும். புரைதீர்காமம்பற்றி யெழும்பாடாணும் பெருவரவிற்றாய் மானிடத்தலைமக்களின் கண்ணதேயாம். எனினும், சிறு வரவிற்றாக இக்காமம் கண்ணிய பாடாண் பகுதி கடவுளரிடையும், கடவுளரொடு மக்கள் காதல் தொடர்புடைவழியும், காமஞ்சாலாக் "குழவிகள் மருங்கினும்" வருவனவுமுள என்று காமப்பருவக்காளையர்பால் பாடாணுக்கிக் கூறிய தன் முன்னையவிதிக்கு இவ்விலக்குண்மையை ஆசிரியர் இச்சூத்திரங்களாற் கூறினர் என்பது தெளியப்படும்.

இவற்றுள், முதலதான "காமப்பகுதி......புலவர்" என்பதற்குச் செம்பொருளாவது :—"புரைதீர்ந்த ஒத்தகாமத்தில், இருபாலாரும் கடவுளராகவேனும், மக்களொடு கடவுளராகவேனும் அன்பினைந்திணைக் காமக்கூட்டத்தடியாகப் பிறக்கும் பாடாண் பகுதியும் வரையப்படாது; அமைத்துக் கோடற்பாற்றும் என்பது இலக்கணம் அறிந்த புலவர் கொள்கை."

இனி, " குழவிமருங்கினும் கிழவதாகும் " என்பது இதை அடுத்த புறனடைச் சூத்திரம். "புரைதீர் காமம் புல்லிய வகைத்தாம்" பாடாண்பகுதி, ஒரோவழி "காமஞ்சாலா இளஞ்சிறார் மாட்டும் காதல் கூர்வாரின் உயர்ந்த ஒருதலைக் காமம் பற்றிவரும் உரிமையு முடைத்தாம்" என்பதே இதன் நேரியபொருளாகும். இவ் விதிவிலக்குப் புறனடைகளுக்குச் சான்றோர் செய்யுட்கள் உண்மை இச்சூத்திரங்களின் கீழ் உரையாசிரியர் தரும் உதாரணங்களால் தெளிவாகும்.

இவற்றால் இம்முதற் சூத்திரம், பாடாண் திணையில் வரையப்படாததோர் புறனடையை விளக்க எழுந்ததென்பதும்; அப்புறனடையாவது, பாடாணெல்லாம்

மக்கட்டலைவர் மேற்றுய்ப் பெரும்பாலும் அவர் புற ஒழுக்கச் சிறப்புப்பற்றியும், ஒரோவிடத்து அவர் தம் குற்றமற்ற அகவொழுக்கப் பெருமைபற்றியும் வருவது நியதியாயிருக்கக், காமம் பற்றிய பாடாண்மக்களே யன்றிக் கடவுளர் மருங்கினும பயிலுமென்பதுமே நுதலியதாகும். இதைவிட்டு நச்சினர்க்கினியர் இச்சூத்திரம் காதல் பற்றிய பாடாண் கடவுளர்க்கும் மக்களுக்கும் ஒப்பவழங்கும் என்பதை விளக்குவதாகப் பொருள்கூறுவர். மக்கட்காதல்பற்றி "புரைதீர்காமம் புல்லியவகை யினும்" என மேலைச் சூத்திரத்தில் ஆசிரியர் தெளிவாகக் கூறியிருப்பதால், ஈண்டு அதனையே மீண்டும் கூறற்கு அவசியமில்லை. மக்களுக்குரிய பாடாண் எவ்வகையி லும் கடவுளர் பாலும் வழங்கப்பெறுமா? என்ற வினவிற்கு விடைகூறுமுகத்தான் இச்சூத்திரம் எழுந்ததென்று கொள்வதே பொருத்தமும் பொருளும் உடைத்தாகும்.

"குழவி—தாகும்" எனும் இவ்விரண்டாம் சூத்திரத்துக்கும் நச்சினர்க் கினியர் கூறும்பொருள் பொருந்தாது. இச்சூத்திரம் பிள்ளைத்தமிழ் முதலிய பிற் காலத் தெழுந்த பிரபந்தப் பகுதிகளை நுதலுவதாக அவர் குறிப்பதும், குழவிப் பரு வத்துக் காமப்பகுதி உரியதாகுமென்று கூறுவதும் அமைவுடைத்தாகா. ஆசிரியர் காலத்து வழங்காமல் பல நூற்றுண்டுகளுக்குப் பின் உண்டாக்கப்பட்ட பிரபந்தப் போக்குக்களை ஆசிரியர் இச்சூத்திரத்துச் சுட்டினரென்பது கொள்ளற்கில்லை. அன்றியும் "காமஞ்சாலா"க் குழவிப் பருவத்துச் சிறர்க்குக் காமவுணர்ச்சி உரிய தாகக் கொள்ளுதலினும், அவர்பால் காமவுணர்ச்சியுடையார் பிறர் காதல் கூர்வது இயல்பாதலால் அது குற்றமாகாத விடத்துப் பாடாணுக்குரியதாகும் என்ற பொருளே இச்சூத்திரத்துக்கு ஏற்றதாகும்.

பொருள். 85-86 புறம் 30-31 ஆம் சூத்திரங்கள்.

"ஊரொடு தோற்றமு முரித்தென மொழிப"
"வழக்கொடு சிவணிய வகைமை யான"

இவற்றை ஒரே சூத்திரமாக உரையாசிரியர் கொண்டிருக்கவும், நச்சினர்க் கினியர் இரண்டெனக்கொண்டு பொருள் கூறுவர். அவர் கூறும் பொருள் தமிழ் மரபும் அறமும் மாட்சிமைப் படாமல் முற்றும் முரணுடையதாகும். இவற்றுள் முத லதற்கு, நச்சினர்க்கினியர் "ஊரிற் பொதுமகளிரோடு கூடிவந்த விளக்கமும் பாடாண் திணைக்கு உரித்து" எனக் கூசாது கூறிவைத்தார். ஒருத்தியே அன்றிப் பரத்தையர் பலரோடும் கூடிவாழ்வாரிருக்கலாம். எனில், அன்னவர் வாழ்வு "வரைவிலா மாணிழையார் மென்தோள் அளறு ஆழும் புரையிலாப் பூரியர்களாம், திருநீக்கப்பட்டார் தொடர்பாக" வெறுக்கப்படுவது தமிழற மரபாயிருக்க, அவ்விழி தகையார் கூட்டத்தைப் புலவர் பெருமக்கள் புகழ்ந்துபாடுதெற்கான பீடுசான்ற பாடாண் பகுதியாக நச்சினர்க்கினியர் பேசத்துணிந்தது, அவர்காலத்து மக்கள் சிலர் இழிவொழுக்கம் கடியப்பெறுத் தீவழக்கும், அவர் உயர்வாகக்கருதிய சில பிற் காலவடமொழிப் போலிநூலார் புன்போக்கும் நோக்கிப்போலும். காரணம் எது

ஆயினும் இவ்வொழுக்குக் கடிந்தொதுக்கப் படுவதன்றித் தமிழ்ப்புலவர் ஏத்திப் போற்றத் தலைவர்க்கு வீறுதரும் பாடாண் திணைக்குப் பொருந்துவதன்று.

இச்சூத்திரத்திற்குத் "தலைமக்கள் பிறந்த ஊரும் அவர் (உயர்குடிப்) பிறப்பும் பாடாண் பகுதியில் எடுத்தாளற்கு உரிமை யுடையவாம்" என்பதே சொற்றொடர் சுட்டும் செவ்விய பொருளாகும். இதைக் கூறிவிலக்கற்கு நச்சினார்க்கினியர் காட்டும் ஏது விரண்டும் போதிய ஆகா.

அவர்தரும் ஏதுக்களாவன :—

" இச்சூத்திரத்திக்குத் தலைவர் பிறந்த ஊரும் அவர் பிறப்பும் என்றுபொருள் கூறின், (1) முன்னர் "வண்ணப்பகுதி" என்பதனால் பிறப்புப் பெறுதலானும், (2) மரபியற்கண்ணே "ஊரும் பெயரும்" என்னும் சூத்திரத்து ஊர்பெறுதலானும், இது கூறியது கூறலாமென்றுணர்க" இம்மறுப்புரையில் பெறப்பட்ட கூற்றுக்களின் ஆற்றலை இங்குச் சிறிதாராய்வோம்.

நச்சினார்க்கினியர் தரும் ஏது :—

1. முதலாலது "வழங்கியல் மருங்கின்" எனும் மேலைச் சூத்திரத்தில் "வண்ணப்பகுதி" எனும் தொடருக்கு "வருணவகை" எனும் பொருள் இவர்புகுத்த முயலும் புதுமுரண் என்பதை அச்சூத்திரப்பொருள் ஆராய்வுழி மேலே கண்டோம். பாடாண் தலைவரின் குடிப்பிறப்பு அச்சூத்திரத்திற் சுட்டப் பெறவில்லை. அதற்கு இவர் கொளுத்த விரும்பும் ஒவ்வாப் பொருளே கொள்ளினும் கூட, பாடாண் திணைக்குத் தலைவரின் உயர்குடிப் பிறப்பு உரித்தாவதன்றி வாளா அவர் பிறந்த வருணநிலைபோதாது. சாதிப் பிறப்பளவில் பெருமை பேசிச் சிறப்புரிமை கொள்வது தமிழ் மரபில்லை. சாதிகருதாமல் " ஆன்ற குடிப்பிறத்தல் வேந்தவாம் பண் " பாகத் தமிழ் அறநூல் கூறும். ஆகவே பாடாண் தலைவருக்குரிய பெருமையாகத் "தோற்றம்" என்று இச்சூத்திரம் குறிப்பது ஆன்ற குடிப்பிறப்பினையே ஆதல் வேண்டும். இனி,

அவர்தரும் ஏது :—

(ii) இனி (*a*) "ஊரும் பெயரும்" எனும் மரபியற் சூத்திரம் நுதலிய பொருளும், அதில் ஊர்-பெயர் கூறப்படும் இட இயைபும் வேறு; ஈண்டுப் பாடாண் பகுதியில் பாடாண் தலைவனின் பெருமையை அவன் ஊரொடும் சார்த்திக்கூறும் அமைதி வேறு.

(*b*) மேலும், அம்மரபியற்சூத்திரத்தில் ஊர் கூறுவதால், ஈண்டும் பாடாண் பகுதியில் தலைவருக்கு ஊர்ப் பெருமைத் தொடர்பை விலக்கவேண்டுமெனில், ஆண்டுப் பெயரும் கூறப்படுவதால் அப்பெயரும் பாடாண்பகுதியில் விலக்கப்பட வேண்டுமே? அதற்கு மாறாக இதற்கடுத்த சூத்திரத்தில், பாடாண்தலைவர்க்கு அகத்திணையில் அவர் தம்பொதுப் பெயர் கூறியமைவது போலன்றிப், புரைதீர்காமம் பற்றிய பாடாண்புறத்திணையில் அவர் இயற் (மெய்ப்) பெயர்ச்சார்பும் அமைத்து

வைத்தனர் (புலவர்) என, "மெய்ப்பெயர் மருங்கின் வைத்தனர் வழியே" எனும் சூத்திரத்தால், ஆசிரியர் தெற்றென விளக்குகின்றனர். ஆகவே, பாடாண் தலைவர் ஊரும் உயர்குடிப் பிறப்பும் பெயரும் சார்த்திக்கூறல் அமைவுடை மரபென்பதை விளக்குவதே இம்மூன்று சூத்திரங்களில் தொல்காப்பியர் கருத்தாமென்பது தேற்றம். எனவே உரையாசிரியர் ஈண்டு இவ்விரண்டும் ஒரு சூத்திரமெனக் கொண்ட பாடமே ஏற்புடையதாகும். இதன் பொருள்:—

அகத்திணையில் கிளவித்தலைவர் "சுட்டி ஒருவர் பெயர் கொளப்பெறாஅர்" என வரையறுத்து விலக்கியபடியல்லாமல், புறத்திணைப் பாடாண்பகுதியில், புரைதீர்காமப் பாடாண் தலைவருக்குச் சுட்டி அவர் ஊரும் குடிப்பிறப்பும் சார்த்திக்கூறல் புலவர் புலனெறி வழக்கோடு ஒத்து அமையும் மரபுமுறையாம். இந்நேரிய பொருளை விடுத்து இதற்கு நச்சினார்க்கினியர் தரும் பொருந்தாப் புதுப் பொருள் தமிழ் மரபோ டொவ்வாதாகும்.

The Pre-deluge Pandinad and her Southern Frontier

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'Tamilaham' is a handy classic name for the whole Tamil country, and has been sanctified by long usage and immemorial vogue from the prehistoric Sangam age down to our days both in literature and traditions of the Tamils. It stands not for any one province or territory, not even for the mere far-famed kingdom of the Pandyas of yore, always and specially known as the Tamil monarchs, but for the entire Tamilian Peninsula extending south from the modern Tirupathi hills. Both tradition and belief among the Tamils postulate that their original homeland lay between these Venkata hills in the north, and an alleged Kumari river in the south said to have been submerged long ago with all the regions it watered in the southern continent by one of the devouring angry tides of the hungry Indian Ocean. The story of deluges that successively swallowed up large slices of land in the south of the Indian continent rests not merely on legends and folklore. It is enshrined and embalmed in standard old classic poetry of the Sangam poets, and has been handed down to posterity by all the ancient and medieval classic text-writers and commentators of great fame and undoubted authority in an unbroken series of standard works that ever commanded the uniform respect and universal homage of all the students of Tamil Literature.

In one of the Mullai Kalis (Verse No. 4) the poet definitely says as follows:—

> " மலிதிரை யூர்ந்துதன் மண்கடல் வௌவலின்
> மெலிவின்றி மேற்சென்று மேவார்நா டிடம்படப்
> புலியொடு வில்நீக்கிப் புகழ்பொறித்த கிளர்கெண்டை
> வலியினால் வணக்கிய வாடாச்சீர்த் தென்னவன்
> தொல்லிசை நட்ட குடியொடு தோன்றிய
> நல்லினத் தாயர் ஒருங்கு தொக்கெல்லோரும்."

The statement of fact in this passage is positive and crystal clear. In plain English it runs thus:—" When tidal waves swept over and swallowed up his own lands, the Southern monarch of undying glory

did not despair. Forging ahead into the wide territories of hostile kings, the Cholas and the Cheras, removed therefrom their respective flags with the puissant panther (of the Cholas) and the drawn bow (of the Cheras), and replaced them by his own standard with the shining shark with whose might he easily reduced the invaded country into his sway, thus making good his loss of lands in the south. And all the good shepherds, whose forbears then hailed along with the other subjects whose enduring loyalty had established the fame of the Pandyas from times of yore, having now assembled together." Some may prefer to take the word Kudi (குடி) here to denote the Pandya's dynasty rather than his subjects. Kudi in Tamil may mean either a subject or a family according to context, of course. In juxtaposition with a sovereign, 'kudi' should preferably and suitably signify a subject rather than a family. 'தென்னவன் தொல்லிசை நட்ட குடி' must thus aptly mean either the Pandya's ancient subjects with well-established reputation, or the Pandya's subjects whose loyal valour firmly established his fame of yore. This phrase need not therefore be restricted to mean in this context only Pandyan's kudi or family of old repute. But whatever its meaning, there can be no dispute whatsoever as to the central fact alluded to in these lines of Mullai Kali. This passage definitely alludes to a phenomenal tidal swell that resulted in the subsidence of the southern territory of the most ancient Tamil kings, the Pandyas. It further announces expressly that the Pandyan monarch made an incursion into and annexed permanently some adjacent tracts or territories of his unfriendly rival kings (the Cholas and the Cheras) in lieu of his lost provinces in the south, and settled down in this new northern home with all his subjects who moved north with him after their homeland was engulfed by an enraged sea. Thus the fact of a prehistoric deluge wiping out a wide expanse of the southern Pandyan country is indisputably established by these and similar authoritative and well authenticated internal evidences in the earliest Sangam poetry. They are of an age far removed from ours by at least 20 long centuries, but proximate enough to, if not almost identical with, the events recorded in the classic passages of the Sangam literature. And, as such, the statements they record must be accepted as fairly established facts of history. But this is not enough for tracing back the history of the pre-Sangam Tamilaham. Further, questions may arise as to how long ago this deluge occurred and as to how far the lost old Tamil Country stretched into the southern ocean beyond the present Cape Comorin. Was there any non-Tamil land beyond the submerged Tamilian territories? And if so who peopled them, and what became of the survivors, if any, of those folks? These are some very important and interesting questions that we must diligently attack and seek to solve with reliable and relevant evidences to guide us in our re-

searches. But they would form a fitting theme for a separate thesis not quite essential for the present enquiry we have taken here on hand. We shall therefore reserve them for a later discussion and confine ourselves now to the question we started with.

This relentless land-grabbing tidal wave that swept off and swallowed the primeval Pandinad is poetically alluded to by Ilangovadigal in his inimitable lines as the vengeful retort of the vanquished southern sea, smarting under an earlier victory over it, traditionally attributed to an earlier Pandian potentate.

" வடிவேல் லெறிந்த வான்பகை பொறாது
பஃறுளி யாற்றுடன் பன்மலை யடுக்கத்துக்
குமரிக் கோடுங் கொடுங்கடல் கொள்ள
வடதிசைக் கங்கையும் இமயமுங் கொண்டு
தென்திசை யாண்ட தென்னவன் வாழி.

—காடுகாண் காதை. வரி 17-22

(*Kadukan Kathai,* lines 17-22).

The allusions in these lines are seized hold of and are elaborated by Adiyarkkunallar in his commentary on the opening lines of Venirkathai in Chilappadikaram in a manner which has given rise to some considerable controversies and much misunderstanding among scholars. It therefore behoves every earnest student of Tamil Research to scrutinise all these relevant passages on record and to soberly investigate their real scope and significance with a view to get at the rock-bottom of truth. The first two lines of Venirkathai are as follows:

" நெடியோன் குன்றமுந் தொடியோள் பௌவமுந்
தமிழ்வரம் பறுத்த தண்புனல் நன்னாட்டு."

And Adiyarkunallar's especial gloss on these lines runs thus:

" நெடியோன் குன்றம்-வேங்கட மலை. தொடியோள்—பெண்பாற் பெயராற் குமரியென்றதாயிற்று. ஆகவே தென்பாற்கண்ணதோர் ஆற்றிற்குப் பெயராம். ஆனால் நெடியோன் குன்றமும் தொடியோள் நதியுமென்னாது பௌவமென்றது என்னை யெனின், முதலூழியிறுதிக்கண் தென்மதுரையகத்துத் தலைச்சங்கத்து அகத்தியனாரும் இறையனாரும் குமரவேளும், முரஞ்சியூர் முடிநாகராயரும் நிதியின் கிழவனும் என்றிவருள்ளிட்ட நாலாயிரத்து நானூற்று நாற்பத்தொன்பதின்மர் எண்ணிறந்த பரிபாடலும் முதுநாரையும் முதுகுருகும் களரியாவிரையுமுள்ளிட்டவற்றைப் புனைந்து தெரிந்து நாலாயிரத்து நானூற்று நாற்பதிற்றியாண்டு இரீஇயினார் காய்சினவழுதிமுதற் கடுங்கோனீறாயுள்ளார் எண்பத்தொன்பதின்மர் ; அவருட் கவியரங்கேறினார் எழுவர் பாண்டியருள் ஒருவன் சயமாகீர்த்தியனாகிய நிலந்தருதிருவிற்பாண்டியன் தொல்காப்பியம் புலப்படுத்து இரீஇனான். அக்காலத்து அவர்நாட்

டுத் தென்பாலிமுகத்திற்கு வடவெல்லையாகிய பஃறுளியென்னுமாற்றிற்கும் குமரியென்னு மாற்றிற்கு மிடையே எழுநூற்றுக் காவதவாறும் இவற்றின் நீர்மலிவானென மலிந்த எழ்தெங்க நாடும், எழ்மதுரை நாடும், எழ் முன்பாலை நாடும், எழ் பின்பாலை நாடும், எழ் குன்ற நாடும், எழ்குணகாரை நாடும், எழ்குறும்பனை நாடுமென்னும் இந்நாற்பத்தொன்பது நாடும், குமரிகொல்லம் முதலிய பன்மலைநாடும் காடும் நதியும் பதியும் தடநீர்க்குமரி வடபெருங்கோட்டின்காறும் கடல்கொண்டொழிதலாற் குமரியாகிய பௌவமென்றாரென்றுணர்க. இஃது என்னை பெறுமாறெனின், 'வடிவேலெறிந்த வான்பகை பொறாது, பஃறுளியாற்றுடன் பன்மலையடுக்கத்துக் குமரிக்கோடுங் கொடுங்கடல் கொள்ள' என்பதனானும் கணக்காயனார் மகனார் நக்கீரனாருரைத்த இறையனார் பொருளுரையானும் உரையாசிரியராகிய இளம்பூரணவடிகள் முகவுரையானும் பிறவாற்றானும் பெறுதும்."

A reference to two rivers in the submerged southern Pandyan province, *viz.*, the Pahruli and the Kumari, is common both to Ilango's textual lines cited above from Kadukan Kathai and to Adiyarkunallar's glossarial comments just cited. There are many more passages too in Sangam poetry relating to these two submerged rivers. The most intriguing problem, which demands dispassionate inquiry and seeks final solution, arises out of this common reference to these two rivers of a bygone age, and relates to their respective topographical situation in the sea-swallowed Pandinad. It is of much importance first to settle this vexed question before we can successfully attack the other connected problems of history of the pre-Sangam Tamilaham. Only a correct view of this question will afford the key to unlock many other lines of ancient poetry which now hold many other facts hidden from the eyes of the uninitiated lay students of history.

It is therefore necessary to review these relevant references and to revise our notions of their real significance of and bearing on this part of Tamilian history.

Admittedly both the Pahruli and the Kumari rivers ran through and fertilized the now submerged southern Tamil lands. But which of these two rivers was farther south ? Was any of them a landmark or did any form a boundary for any known or traceable tract of the lost lands ? Is any evidence available to investigate these questions ? We must first marshal up and scrutinize the evidences bearing on these aspects of the problem about these two lost rivers. We find many references in ancient Sangam literature to these two rivers. But do they give any indication to locate them in the lost lands in relation to each other topographically ? This would be the first question that occurs to anyone who embarks on this enquiry. Apparently there must be something in the relevant references which offers some clue for guid-

ance in attacking this phase of our problem. For we find scholars coming to diverse conclusions all based on these very references, although their conclusions do not appear quite to square with all implications and with the inexorable logic of facts involved in them. Let us now take a brief survey of some of the conclusions suggested hitherto by eminent scholars on the basis of these passages.

Mahamahopadyaya Dr. Swaminatha Ayyar in his glossary of rare words appended to his edition of Silappadikaram gives these short notes under caption of the two words, Kumari and Pahruli: "குமரி"—தென்பாற் கண்ணதோராறு ; இது முற்காலத்தே கடல் கொள்ளப்பட்டது.' ('Kumari was a river in the south; this was sea-swallowed in early times.') This is all right, as it is. For purposes of our enquiry we may ignore the addendum "மலைநாடுகளுள் ஒன்று" in this note (Kumari is also the name of a district in the montaine province or *malai nad*). For it has nothing to do with the river Kumari. Then he thus writes about Pahruli :

"பஃறுளியாறு—குமரியாற்றிற்குத் தெற்கின் கணோடிய ஓராறு (230)"

(" Pahruli was a river that ran south of the river Kumari.") It is here for the first time we meet with a suggestion as to the topographical or directional situation of these two rivers in the submerged Pandinad. Pahruli is here definitely said to have run south of the river Kumari. It is obvious that the Mahamahopadyaya does not reveal to us his source of information for this statement. Apparently he gathered this impression from some passages in Adiyarkkunallar's gloss at page 230 of his third edition of Silappathikaram. For, in this note, under the name Pahruli, he just gives the reference to page 230 of that book and nothing more. I scrutinized the passage at p. 230 rather carefully. But I could not glean anything there anywise supporting this positive suggestion of the Pahruli being south of the river Kumari. On the other hand, the tenor of the language when carefully scrutinised, seems rather to suggest a conclusion just the very opposite of what the Mahamahopadyaya's note indicates. The purport of the passages of Adiyarkkunallar at this p.230 of the third edition of Silappathikaram is itself the question at issue. We must therefore put them by, till we exhaust all other available sources before we revert to Adiyarkkunallar himself for guidance in tackling his passages, in this context. The author of Arumpathavurai for Silappathikaram is admitted even by Dr. Swaminatha Ayyar to be of a much earlier age than Adiyarkkunallar. We may therefore rely on him if he gives us any clue to solve this question. But he leaves us quite in the lurch. For, he simply says this in his gloss on Pahruli under line 19 of Kadukan Kathai : "பஃறுளியாறு—

குமரிப் பக்கத்ததோர் யாறு." "The Pahruli was a river not far from the Kumari." There is here not any hint as to the respective situation of these two rivers in relation to each other. In the circumstances, I wrote to the learned Mahamahopadyaya himself for enlightenment. I invited his attention specially to the total absence of all information on this point either in Arumpathavurai, or in Adiyarkkunallar or in any known literature of the Sangam period and requested him to enlighten me about this puzzle. In the reply he kindly vouchsafed to my query, he only said he must have gathered this impression from the passage in Silappadikaram and from also some other materials he perhaps had when writing his note under the name 'Pahruli' in his appendix to Silappathikaram; he added, that that impression made him hazard this suggestion about the situation of the Pahruli to be further south of the Kumari, but he cannot now recollect what exactly is the evidence he then relied on for his opinion. Notwithstanding this discouraging reply, I gave the matter most anxious consideration out of deference to the high authority and great position of this veteran scholar in the modern world of Tamil letters. I took much time and trouble further to study and scrutinise all the available references in literature to see if any of them may bear out this suggestion in the note of the Mahamahopadyaya. But the more I thought over it, the greater was the conviction borne in on me that this cannot be so. With profound respect to the Mahamahopadyaya, I still feel constrained to present for the consideration of the research scholars what impresses me as correct indications in this inquiry, only to clarify the issues for them and to enable them further to investigate and arrive at accurate conclusions.

Of course both 'Pahruli' and 'Kumari' were names of rivers in the bygone old-world Pandinad since submerged. All are agreed on this: there is no dispute about it. Both the text-writers as well as commentators have always spoken of them as such. But we may note this difference between these two names in the texts. 'Pahruli'—wherever this name occurs in Poetry is ever mentioned as a river or in terms equivalent thereto. Whereas 'Kumari' is not to my knowledge anywhere in the texts expressly described as a river, nor is it coupled with any distinctive adjunct compelling in the context to read it only as a river. But all the commentators and controversialists now for over 1,500 years have uniformly and invariably treated this erstwhile 'Kumari' in the pre-deluge Pandinad only as a river, and it is too late to go back in this hallowed hypothesis. Moreover, not a single text speaks of Kumari as other than a river anywhere; whereas all the available texts can bear the interpretation hitherto put upon them, and are quite consistent with Kumari being a river. There are one or two

of them which may even be taken as affirmatively suggesting the riverine aspect of 'Kumari.'

"வேங்கடம் குமரி தீம்புனற் பௌவமென், றிந்நான்கெல்லை தமிழதுவழக்கே"

These are oft-quoted as lines of Sikandiar delimiting the area of the Tamil-spoken country. ("The Tiruppathi hills, Kumari and the Ocean form the limits of the Tamil-spoken territory"). In the extant editions of books where these two lines are cited, the words தீம்புனல் are parted from 'Kumari' and sorted with பௌவம் (sea). But this appears on its face to be an obvious error of the scribe or the lithographer. For, as it stands, the adjectival adjunct தீம்புனல் (= sweet water) when coupled with 'Powam' (பௌவம்) or the salt-laden sea, makes no sense, but would admirably qualify the previous proper name 'Kumari' if Kumari were a fresh water river. Mahavidwan R. Raghava Ayyangar of Ramnad recently expressed this opinion while writing the history of Tamil Literature in the Research Section of our University and I am entirely at one with him in this view of these lines of Sikandiar. The lines should therefore be read as follows:

"வேங்கடம், குமரித்தீம்புனல், பௌவமென்
றிந்நான் கெல்லை தமிழது வழக்கே."

If this is the correct reading, as I think it should be, then Sikandiar's description of Kumari leaves no doubt of its being a river.

Again, Ilango Adigal's lines also leave little doubt as to what he thinks of this Kumari :—

"பஃறுளியாற்றுடன் பன்மலையடுக்கத்துக்
குமரிக் கோடுங் கொடுங்கடல் கொள்ள."

'Kodu' (கோடு) in Tamil means either a river-bank or the peak or crest of a mountain. No one save the late Mr. Shanmugam Pillai of Sholavandan has so far suggested this 'Kumari' to be a mountain. Sikandiar's suggestive lines just quoted negative this notion. The tell-tale description of Kumari of Karikizhar (காரிகிழார்) and Kurungozhiyur Kizhar (குறுங்கோழியூர் கிழார்) in their respective verses Nos. 6 and 17 in Purananuru also reinforce the accepted belief of its being a river. For, in both these poems these two poets, not only significantly contrast the southern Kumari with the northern hill-boundary, but also qualify Kumari, with adjectival phrases which suggest its riverine aspect: "தெனாஅது உருகெழு குமரி" is in marked contrast with "வடாஅது பனிபடு நெடுவரை" in verse No. 6 of Purananuru. So also "தென்குமரி" stands in juxtaposition with வடபெருங்கல் in poem No. 17 (puram). All these more than make it probable that the lost 'Kumari' was a river in the submerged Tamilaham. Even were it

otherwise, it would not affect the main thesis of the present enquiry; we are here primarily concerned only with the question as to which side of the 'Kumari' the 'Pahruli' lay.

And this brings us back to the question we started with, (*i.e.*) the situation of 'Pahruli' in relation to this time-hallowed 'Kumari.' The Pahruli might have been north or south of the 'Kumari.' But before we proceed further, we must make sure of one pivot of fact on which the whole inquiry hinges and turns. Whatever the old Kumari was, whether a river or a hill, it surely served at all times as a decisive landmark in the ancient Tamilaham, and was always reckoned as the southern boundary for the entire country of the Tamils. In the prologue to the earliest extant classic Tamil grammar Panambaranar, the contemporary and classmate of Tolkappiyar avers this fact: "வடவேங்கடம் தென்குமரி—அயிடைத்தமிழ்கூறும் நல்லுலகத்து" ("Venkata Hills in the north and the Kumari in the South, in the good old world where Tamil was current"). Kurunkozhiyur Kizhar in Puram verse 17, thus defines the boundaries of Tamilaham:

> "தென்குமரி, வடபெருங்கல்,
> குணகுட கடலாவெல்லை."

('In the south the Kumari; in the north, the great hill; in the east and west, the sea; these form the boundaries (for Tamilaham)." We have also adverted above to two other poems where the same 'Kumari' is spoken of as the southern boundary for Tamilaham—one in Puram verse, No. 6 in the words of Kari Kizhar, "தெனஅதுஉருகெழுகுமரியின் தெற்கும்" and another by Sikandiar of yore, "வேங்கடம், குமரித்தீம்புனல், பௌவம், என்றிந்நான்கெல்லை தமிழது வழக்கே."

All these irreproachable early evidences make just one fact crystal clear. The Kumari, whatever it was, was universally and uniformly prescribed in all the earliest Tamil poems as the southern boundary for the pre-sangam homeland of the Tamil-speaking people in the South Indian peninsula. Mark, it was neither the 'Pahruli' nor any other landmark, but the Kumari and the 'Kumari' alone that was the invariable southern frontier bourn mentioned to mark off Tamilian homeland from the non-Tamil tracts beyond. This must therefore be the inevitable corner-stone for any edifice one may erect on this theme. Any interpretation of Adiyarkkunallar's glosses under the opening lines of Venirkathai must harmonise with this inexorable central fact. On no pretext may this lost river Kumari be shifted from the southern frontier of the submerged Tamilaham. For that would falsify the map drawn by all the master-poets of the Sangam eras of the old world long since lost in the southern sea. No scholar would venture to give the

lie direct to the positive statements solemnly repeated and re-affirmed by so many savants of the Sangam period. With this unalterable fact borne in mind, we shall now revert to the passages of Adiyarkunallar and the theories deduced therefrom. Just one other note of warning also would not be out of place here. Adiyarkunallar is after all only a commentator. He only purports to interpret old poets, and not to import his own views at variance with explicit texts. So even if Adiyarkunallar unmistakably indicates an opinion contrary to the old texts, his views cannot override the affirmation of all the Sangam poets. He can at best only dissent from the verdict of their verses. But by no means could he overrule them by his own *ipse dixit*. This would be so, even if he unequivocally purports to contradict the old texts of the Sangam poets. But when he expressly proposes only to interpret those texts, wisdom would require us so to read the commentator's glosses as to reconcile them ever with the explicit import of the earlier author's texts.

And now let us look into the relevant passages of Adiyarkunallar relating to this particular question at issue here. We need not repeat here his passages cited already at the beginning of this dissertation. He makes it pretty clear at the very start of his gloss that he writes all this only to explain how or why Ilango Adigal refers to the 'Kumari' as the sea, and not as the river as of old. The Venir Kathai opens thus :

> " நெடியோன் குன்றமும், தொடியோள் பௌவமும்
> தமிழ் வரம்பறுத்த தண்புனனன்னாட்டு."

(The Vengada hill and the Comorin sea delimit the well-watered happy Tamil world). At the very start, before beginning to give his annotation of these opening lines of Ilango, the commentator here raises what seems to him a very pertinent question. He knows just as we all know now, that all the earlier Sangam poems explicitly speak of the southern boundary of the old Tamilaham as the river Kumari. Ilango Adigal should have referred to the same Kumari only as a river. But he expressly mentions the Kumari sea as the southern boundary of Tamilaham in these lines (தொடியோள் பௌவம் or குமரிக் கடல் or கன்னித்தேவியின் கடல்). He is not alone in thus describing this southern landmark as a sea, as we shall presently see. Chiru Kakkai Padiniyar also says the same thing :

> " வடதிசை மருங்கின் வடுகு வரம்பாகத்
> தென்றிசை யுள்ளிட்டு எஞ்சிய மூன்றும்
> வரைமருள் புணரியொடு பொருது கிடந்த
> நாட்டியல் வழக்கம்."

Thus we see that references in the Sangam poem to 'Kumari' as the southern limit of Tamilaham range themselves into two groups, one alluding to it as a river, and the other mentioning it as a sea-bourn. We may also here notice that the poems speaking of the 'Kumari' as a river are on the whole of an earlier age than those referring to it as the southern sea. This obvious difference in description of this boundary among the earlier and later group of poems which we now commonly classify as Sangam literature requires some explanation. This explanation Adiyarkunallar offers in his remarks prefixed to his annotation to the opening lines of Venirkathai. The upshot of this whole preface is this: both the old rivers, the Pahruli and the Kumari, disappeared along with the country they watered of yore in a deluge at the close of what this commentator terms as the primary period (முதலூழி) and as the Kumari river ceased to exist before the age of Silappathikaram, its author Ilango Adigal could not speak of a lost river in the submerged land in the south, and so in his Venirkathai he rightly alluded only to the Kumari sea which was in his time the southern bourn of the then known Tamilaham. What Adiyarkunallar anxiously attempts here to make out in this preface is this. Although the earlier Sangam poets differ from Ilango and others since his time in their different descriptions of the southern boundary for Tamilaham, each of these two groups was correctly speaking the truth—in relation to the circumstances existing in its respective times. The commentator here essays to account for this apparent discrepancy between these two groups of poets regarding the southern boundary for Tamilaham. And he sets out to relate here a tradition about this matter with some elaboration. The point he is at pains to emphasise in this prefatory note deserves notice and demands consideration.

In this preface, Adiyarkunallar deliberately draws attention to a deluge and he categorically alludes to three facts or features to make it clear that he was here referring only to the first or the earlier of the two inundations which according to tradition successively swallowed the southern Pandinad in two gulps, finally reducing in two stages the area of the old wider Tamilaham to its present relatively lesser proportion, stopping short at the present Cape Comorin, in her southern confines. The traditional account of these two deluges is recorded both in Iraiyanar Kalaviyal Urai attributed to Nakirar, and in this commentary of Adiyarkunallar to Venir Kathai in Silappathikaram. Both these great commentators substantively affirm the same story. In fact Adiyarkunallar appears to accept and repeat this account from the other earlier commentary of Iraiyanar Kalaviyal, as he expressly refers to this as one of the sources for his account. It is good to remember this traditional account, as it is necessary to unravel many an

otherwise unintelligible reference in early literature, and I therefore take leave to recall and recount it here in brief.

The South Indian Peninsula extended far beyond the present Cape Comorin into the Indian Ocean in the south. All that country beyond the Cape, which once was but is now lost, comprised extensive tracts of inhabited country, many thousands of square miles in area. Of this only the northern portion of about 7,000 square miles contiguous with the present Pandinad was the Tamil-spoken world with South Madura (தென் மதுரை) as the metropolis of the old Pandya dynasty. The extreme trans-Tamil southern stretch was occupied perhaps by some non-Tamil races. The boundary that separated the northern Tamil country from the non-Tamil regions further south was the Kumari river. All this old land was submerged by two successive sea-swells. The first deluge submerged all the non-Tamil regions and a part of the Tamil territories north of the old Kumari river. The primeval Pandyan capital—old Madura, situated in the south Tamil province—was also lost in this first subsidence of the southernmost regions. The Pandyan kings thereupon moved north, founded a new capital known to Tamil literature as "Kapadapura" in the then-existing Pandinad beyond the present Cape. But they were fated to lose again this part of the Tamil country also with the second capital they had founded thereat in another inundation. This second deluge stripped Tamilaham of all its southern tracts beyond the present Cape; and it was only then that the modern historic Madura City was founded by the Pandyan kings as the third capital of their new kingdom. In the old south 'Madura' in the submerged Pandinad there was a Tamil Academy founded by the famous Pandya Kings of yore. After its subsidence the Academy was revived in 'Kapadapuram' to run its second course. In old 'Madura' almost on the eve of the first deluge, Tholkappiyam, the classic Tamil Grammar, first came into existence; but it had no time to earn or exert any commanding influence there in the age of the first Academy owing to the tragic catastrophe that overtook that Academy and the first Pandyan Capital itself. In Kapadapuram during the second Academy, Tholkappiyam soon earned enough recognition for itself as the *magnum opus* of its author, and ruled the roast in the then world of Letters. But the ill-fated Pandyans had yet another cataclysm to encounter. A second swell of the southern ocean stripped them of their second capital too with all their land below the present Cape. They had then no alternative but to move still further north to carve out a new kingdom for themselves and to found the modern Madura as their third metropolis where they re-established their famous Tamil Academy for a third time. There were thus three stages in the history of the Tamil Sangam in Pandinad. Traditions in Tamil literature chose

to call them as the three Sangams or Academies, apparently because they were held in three different cities, and as they ran their courses in three successive periods. This in short is the consistent traditional account of the three Tamil Sangams persistently believed in by all the Tamil people, and unequivocally recorded in all Tamil literature from early times.

And as we said before, Adiyarkunallar briefly alludes to this account in his now famous note at the beginning of Venirkathai. He categorically refers to, and reiterates the three distinctive factors of time, place and circumstance to warn his readers to avoid all mistakes as to what he means there to convey: "முதலூழி யிறுதிக்கண், தென் மதுரையகத்து, தலைச்சங்கத்து... இரீஇனார் காய்சினவழுதிமுதல் கடுங்கோன் ஈறாயுள்ளார் எண்பத்தொன்பதின்மர்; அவருட் கவியரங்கேறினார் எழுவர் பாண்டியருள் ஒருவன் சயமா கீர்த்தியனாகிய நிலந்தருதிருவிற்பாண்டியன் தொல்காப்பியம் புலப்படுத்து இரீஇனான். அக்காலத்து அவர் நாட்டுத் தென் பாலிமுகத்திற்கு வடவெல்லையாகிய பஃறுளி யென்னும் ஆற்றிற்கும் குமரி என்னும் அற்றிற்கு மிடையே எழுநூற்றுக்காவதவாறும்.......கடல் கொண்டொழிதலால், குமரியாகிய பௌவம் என்றாரென்க."

"At the close of the first or primary period, in the south (submerged) Madura City, 89 Pandya Kings successively upheld the 1st Tamil Academy. Of these only seven sovereigns passed muster as authors and took rank as Sangam-poets themselves, of whom Jayamakirti Nilan-tharu-tiruvil-pandyan was one. In his court was Tholkappiyam first ushered in. At that time and in their (Pandya's) country occurred the destructive deluge that submerged a vast territory of their Pandinad. This lost Tamil territory comprised about 49 countries or districts and many other tracts besides; and all this lost land lay between the *river Kumari* and the *river Pahruli* which latter river was the northern limit of the southern province of the then extant Kingdom of the Pandyas. As all these were then lost in the sea-swell, the author Ilango here referred to the Kumari sea instead of the old Kumari river as the southern boundary."

In these words, Adiyarkunallar here offers his explanation for Ilango Adigal's reference to the 'Kumari sea' as the southern limit of Tamilaham, as against the Kumari river which was so spoken of by all the earlier poets. In this context the commentator purports to emphasise the accepted facts of a subsidence of the southern Pandinad in a sea-swell, involving the loss of large tracts of lands and also of the two named rivers the Pahruli and the Kumari. He also says here that all this happened about the time of Nilan-tharu-Thiruvil-pandiyan and very

soon after Tholkappiyam made its debut. He nowhere says anything in this long note of his as to the direction or situation of the river Kumari. But here he appears just to allude to the northern bank of the lost old Kumari river as the extreme limit up to which the first sea-swell submerged the Tamil tracts. "தடநீர்க்குமரி வடபெருங் கோட்டின் காறும் கடல் கொண்டொழிதலால் குமரியாகிய பௌவமென்றார் என்றுணர்க." This is the crucial passage of Adiyarkunallar that is taken as the sheet-anchor by those who would maintain that the old Kumari river ran north of the Pahruli. They exultingly point to this passage and argue that this unmistakably signifies that the southern sea swallowed the lands upto the northern bank or bund of the old river Kumari. Hence Ilango after this subsidence refers to the southern limit of Tamilnad of his time only as the Kumari sea and not as the Kumari river as it had ceased to exist long before he composed his famous epic. They easily conclude from this that as the sea overran the lost lands from the south, the northern limit of the subsided country must be the only natural and most probable reference to be alluded to in this significant passage of Adiyarkunallar. They hold that these words must therefore lead to the only irresistible inference that the old river Kumari was the northernmost limit of the lost lands in Tamilaham, which in its turn would result in the inevitable corollary that the Pahruli river ran south of the old Kumari. For, the Pahruli is said to have run only in the north of the southernmost district (now lost) of the then-existing Pandinad. "அக்காலத்து இவர் (பாண்டியர்) நாட்டுத் தென்பாலிமுகத்திற்கு வடவெல்லையாகிய பஃறுளியென்னும் ஆற்றிற்கும்".

But this plausible and facile argument involves much fallacy, and ignores certain fundamental truths which are here lost sight of, but which are really fatal to this theory and which go far to establish just the contrary. We do not at all suggest that Adiyarkunallar is incorrect or is erroneous in any statement he makes in this passage. We only think that the real import of his words here is lost sight of by those who rely on them as supporting their theory. Even if this passage admits of no other interpretation, and it unequivocally means only what these theorists attribute to it, we think that enough can be easily shown otherwise to convince that such a theory is untenable even if advocated by this erudite commentator. But on deepest consideration of all the facts, we feel convinced that the words of Ilango and Adiyarkunallar need not bear this interpretation and do not support this theory. On the other hand this passage seems quite consistently to bear out the contrary conclusion. This we shall show presently.

Let us now look at some salient and self-evident truths that must be remembered and cannot at all be ignored in this connection. The

river Kumari was ever spoken of in all old literature as the southern boundary of Tamilaham before the deluges and the subsidence of Pandinad they entailed. If this river ran in the lost land only at its northern end, somewhere near the modern cape, then that would exclude all the territory south of and beyond that river from the Tamil world referred to in all the texts cited above. For, uniformly they all definitely assign and demarcate the whole of the then known Tamil-world, the land where Tamil was spoken, as lying between the Venkata hills in the north and the river Kumari in the south. We also know now that much if not the whole of the present Pandinad was not part of the original kingdom of the famous pre-deluge Pandyan monarchs. Their primeval dominions all lay south of the present southern promontory which has come to be spoken of as the reputed resort of the virgin Goddess 'Kumari,' ever since the City of Madura on the Vaigai came to resound with the voice of the 3rd Sangam savants. If then this river Kumari of the Tamil classics were in the northern confines of the old Pandinad, it would never have been the southern boundary of the old Tamilaham. It would be worse than absurd for all those old poets to speak of the river Kumari if she were running in the northern confines of the pre-deluge Pandinad as really marking the southern boundary of the then extant Tamil world.

The thesis that the old river Kumari ran north instead of south of the Pahruli in the old Pandinad would entail one of the two results, both of which are unthinkable absurdities. That would mean either (1) that the poets of the classic times deliberately spoke untruth by mentioning as the southern boundary of the Tamil world a river actually marking the northern limits of Pandinad; or (2) that Pandinad was not deemed to be part of the pure Tamil world, and so it was excluded in the map of the old Classic Tamilaham. These alternative conclusions would be as inevitable on the available textual evidences as they are monstrously absurd for acceptance. Neither the poets would be guilty of such a patent lie; nor would Pandinad ever have been excluded in any survey of reckoning of the Tamil world; (i) Not one, but many poets in different times have solemnly affirmed and reiterated the statement that the river Kumari formed the southernmost boundary of the Tamilaham; and such a statement would not have gained currency or credence even for a day if it were untrue, (ii) And Pandinad was too important at least in virtue of the standard language in vogue there to be left out in any survey or chart of the Tamil world.

Here the latter proposition will be reinforced by emphasising some indisputable textual evidences bearing on this question in view

of some later day pseudo-patriotic commentators who gave room for such doubt by excluding the whole Pandinad from the seat of pure Tamil Speech. Says Senavaraiyar in his gloss under the Echchaviyal sutram 2: "செந்தமிழ் நிலமாவன:—வையை யாற்றின் வடக்கும், மருதயாற்றின் தெற்கும், கருவூரின் கிழக்கும், மருவூரின் மேற்கும்." This would read in English as follows:—"The land of the pure Tamil tongue lay north of the Vaigai river and south of the Marutha stream, east of Karur in the Trichinopoly District and west of Maruvur (the old Kaveripattinam). This will of course gratify the pride of scholarship in the Chola country. For, these boundaries here given would entirely exclude the Pandinad and make the heart of the Chola country alone as the sole and exclusive seat of Sen Tamil region. And such was the degeneracy of later Tamil scholarship that even this patently false statement was allowed to be repeated unchallenged until the greatest grammarian and critic Sankaranamachivayar effectively exposed and refuted this egregious error. Yet to this day this erstwhile Sanskritist (Senavaraiyar) is in some quarters accepted as an authority even on a matter of boundary of the Tamilaham in the bygone classic age, even while he is discredited by the universally acknowledged authority of the entire world of exalted Tamil scholarship.

Let us here take a rapid and brief review of some unimpeachable evidence on this matter of locating the Sen Tamil country as it appears to have a vital bearing on the thesis on hand. From time immemorial, in the entire Tamilaham, the land of the Pandyas enjoyed the peculiar prestige and special privilege of universal recognition as a province of Sentamil properly so-called. Karikkannanar of Kaveripattinam, the poet of the Court of the Chola king, Tiruma Valavan the great, in his poem (Puram verse No. 58) acknowledges the contemporary Pandyan as the king of Madura specially far-famed as the seat of Tamil:—

" வரைய சாந்தமும், திரைய முத்தமும்,
இமிழ்குரல் முரசம் மூன்றுடனாளும்
தமிழ்கெழு கூடல் தண்கோல் வேந்தே."

Nattattanar in his ode on Nalliyakodan, known as Chiru Panarrupadai, says that the very streets of the Pandyan's metropolis were the main stay and abode of Tamil:—

" கொற்கைக் கோமான் தென்புலங் காவலர்
மருமான்,............கடுந்தேர்ச் செழியன்
தமிழ்நிலைபெற்ற தாங்கருமரபின்
மகிழ்நனை மறுகின் மதுரை."

Mangudi Marudanar mentions in his poem "Madurai Kanchi" that Nilantaru Tiruvil Pandyan of the 1st Sangam age glorified himself by

supporting and encouraging the association or academy of great professors and teachers (of Tamil in his then capital since submerged):—

" தொல்லாணை நல்லாசிரியர்
புணர்கூட்டுண்ட புகழ்சால் சிறப்பின்
நிலந்தரு திருவின் நெடியோன் போல.

In the Paripadal stanzas on Madura, the poet likens the capital City to a lotus-flower, its streets to the petals of the full-blossomed lotus; the temple or the palace of the Pandyas to the lotus-kernel. And the people there who are specially named as the sweet Tamil citizens are likened to the soft and sweet pollen particles in that blossom:—

" மாயவன் கொப்பூழ் மலர்ந்த தாமரைப்
பூவொடு புரையுஞ் சீரூர் ; பூவின்
இதழகத்தனைய தெருவம் ; இதழகத்
தரும் பொகுட்டனைத்தே அண்ணல் கோயில் ;
தாதின் அனையர் தண்டமிழ்க் குடிகள்."

In a similar context in Paripadal we find another interesting poem about this Pandyan city of yore. The poet naively asks if that abiding prosperity and fame of the Pandya Kingdom would ever decrease as long as the reputed hill of the kings of Madura stands on earth. The greatest importance of this passage is that the whole Pandyan dominion is here spoken of as the Tamil region proper with Tamil pervading through the very confines or edges of this kingdom:

" தண்டமிழ் வேலித் தமிழ்நாட்டக மெல்லாம்
நின்று நிலைஇப் புகழ் பூத்தலல்லது
குன்றுதலுண்டோ, மதுரைக்கொடித்தேரான்
குன்ற முண்டாகும் அளவு?"

Almost all the family titles of yore of the Pandyan monarchs are self-suggestive and significantly etiological. Two of them are 'Tennavan' (தென்னவன்) and "Sen Tamil Nadan" (செந்தமிழ் நாடன்) *i.e.*, 'Lord of the South' and 'King of the Tamil Country.' Says the metrical lexicon of Sendanar

" செழியன்—தமிழ்நாடன்—கூடற்கோ
தென்னவன்...........பொதியப்பொருப்பன்
புனல்வையைத் துறைவன்...........கோப்பாண்டியனே."

Kamban, the greatest Tamil poet of the Chola country and court, frequently uses the phrase (தமிழ்நாடு) 'Tamilnad' as simply synonymous for and interchangeable with "Pandinad." The fact that he refers to Pandinad by this name in contradistinction to the Chola and Chera

countries in more than one place must be full of significance. In giving a chart or direction to Hanuman, the leader of the reconnoitering expedition sent from Kishkinda southward to search for Sita's whereabouts, the search-party is asked to ransack every nook and corner of these 3 Tamil Kingdoms. But in mentioning them consecutively Kamban's phraseology is significantly suggestive:—

> "........துறைகெழு நீர்ச் சோணாடு கடந்தால் தொல்லை
> ....
> பிறக்கமுற்ற மலைநாடு நாடி, அகன்
> றமிழ் நாட்டிற் பெயர்திர் மாதோ."

(After finishing the search through the well watered and fertile tracts of the Cholas, you will go through the famous mountainous regions (of the Cheras). Thereupon you will enter the wide expanse of the Tamil country). As if he were anxious not to leave any doubt as to what he refers to here by "Tamil nad," the poet hastens to elaborate and to emphasise his meaning by the very next lines in this context:—

> " தென்றமிழ் நாட்டகன் பொதியில் திருமுனிவன்
> தமிழ்ச்சங்கம் சேர்கிற்றீரேல்
> என்றுமவன் உறைவிடமாம்:
> ஆதலால் அம்மலையை இடத்திட்டேகிப்
> பொன்றிணிந்த புனல்பெருகும் பொருநை யெனுந்
> திருநதி பின்பொழிய நாகக்
> கன்றுவளர் தடஞ்சாரல் மயேந்திரமா
> நெடுவரையும் கடலுங் காண்டிர்."

Thus we see that the proudest Chola poet reserves for the Pandyan country the especial name of Tamilnad. Kamban as well as the other poets except Mangudi Marudanar quoted above all hail from the Chola country; and yet they are all at one in acclaiming the Pandyan Kingdom and that alone as the Tamilnad proper, as the world of Tamil tongue strictly so-called. This fact alone should suffice to correct all who ever allowed themselves to be misled by the gloss of Senavaraiyar. And more than anything, these quotations amply establish the fact that the Tamil folks all over Tamilaham, from the Tirupati Hills southward always agreed to allow to the old Pandinad the peculiar and proud title (தமிழ் நாடு) 'the Tamil world.' In the face of all this, it is abundantly clear that no map of Tamilaham shall ever be complete if it will omit Pandinad therefrom. If any one region of the Tamil world ought to receive more attention than others in any map or description of Tamilaham, and should never as such be omitted or ignored, that region is the Pandinad. Any of the boundaries said

to demarcate and mentioned to delimit and mark off the Tamil world should therefore necessarily include and give prominence to the Pandyan dominions, unless those who mapped out such boundaries never wanted and never expected their acceptance by the Tamil people.

Now the Kumari river was uniformly mentioned in all the old texts as the southern boundary of Tamilaham. If it were so, surely this Kumari should have run in the extreme southern limits of Pandinad, which admittedly ever was the most Tamilian and also the southernmost region in the Tamil world. Just as every Pandyan was spoken of as Sentamil-nadan, so also was he always hailed as Tennavan or the monarch of the southernmost territories. If therefore the river Kumari was not in the extreme southern confine of the submerged Pandinad, but ran really north of the Pahruli and somewhere near the modern Kumari cape, as some scholars seem inclined to assume, then naming that river running almost at the northern border of the old Pandinad as the southern boundary of the then Tamilaham would mean only one thing, viz., that almost the whole, if not the entire, Pandinad was deliberately omitted from that chart or survey of the Tamil world. This would only amount to a *reductio ad absurdum*. There can be no map of Tamilaham *sans* Pandinad; and Pandinad could not be part of Tamilaham if the river Kumari said to be its southern boundary ran in the northern border of that Pandinad. The only way out of this dilemma between branding all the old poets as liars and leaving the whole of Pandinad from the old Tamilaham is to take the references to the river Kumari as the southern boundary of Tamilaham in all the old texts in their natural import and therefore to conclude that the river Pahruli was really running north of, but not perhaps very far away from the lost old Kumari river in the southern confine or extremity of the old Pandyan kingdom. That the primeval kingdom of the old Pandyas was not conterminous with the Pandinad of the 3rd Sangam or even of Asokan age is indisputably established on the evidence of all the ancient poets and classical writers of yore both in Tamil and in Sanskrit. That almost the whole of this old Pandinad was swamped and swallowed up in successive sea-swells, and that the king and his surviving subjects migrated north, and colonized and carved out, formed and founded the present peninsular Pandinad above the promontory of Kumari stand proved both by historical and geological testimony of unimpeachable authority. The later Pandinad now cut short by the Comorin sea (குமரிப்பௌவம்) in the south was no remnant of or annexation to any old Pandyan kingdom; it owes not its formation to any land-grabbing lust of conquests of any Pandyan potentates. It was carved out and colonised only as a matter of sheer necessity by those who lost all their homelands in the swollen tides of the southern sea. A

single reference from Mullai Kali (stanza 4) will bear repetition and will explicitly bear out all these facts: —

> " மலிதிரை யூர்ந்துதன்மண் கடல் வௌவலின்
> மெலிவின்றி மேற்சென்று மேவார் நாடிடம்படப்
> புலியொடு வின்னீக்கிப் புகழ்பொறித்த கிளர்கெண்டை
> வலியினால் வணக்கிய வாடாச்சீர்த் தென்னவன்
> தொல்லிசை நட்ட குடியொடு தோன்றிய."

These lines of 'Cholan Nallurittiran' make it abundantly clear that the Pandyas lost not a mere slice or part only, but their entire old country in the sea-swell and consequently carved out the present Pandinad above the Cape, not as an annexation, but as their new home in lieu of their lost homelands in the Southern Sea, whose original southern boundary was the old Kumari river since submerged.

It only remains now to see whether the passage of Adiyarkunallar quoted above would square with this well proved thesis, or would only lend support to the contrary view that the Pahruli ran south of the Kumari river in the submerged old Pandinad. The main argument of the champions of this latter view is that Adiyarkunallar would have reversed the order of references to these two rivers if the Pahruli were the southernmost river. They rely on the following words of Ilango: —

> " பஃறுளி யாற்றுடன் பன்மலை யடுக்கத்துக்
> குமரிக்கோடுங் கொடுங்கடல் கொள்ள"

and also on these words of Adiyarkunallar

> தடநீர்க்குமரி வடபெருங் கோட்டின்காறும் கடல் கொண்டொழிதலான்"

Both these passages are said to point to the Kumari river as the limit up to which the southern sea swallowed the old Pandinad, and so this river must be in the northernmost border of the lost territory. We agree with their first proposition but only demur to their second presumption. We accept the clear implication of words in these quotations that the old Kumari river must be the limit of the lost Tamil territories herein referred to. But we see nothing in these passages even to suggest that it was only the northern limit of submersion that their authors had in their minds when they wrote them. These passages need not, and do not lend any support to the contention that the Kumari river, here spoken of, must be in the northern confines of the submerged Pandinad. On the other hand, such a suggestion if inferred from these texts would militate against the numerous authoritative texts which conclusively establish the contrary as was shown above. It is therefore wise and reasonable to interpret these passages, if possible, so as to reconcile

them with the unequivocal authoritative texts of other earlier classics; and on close study it will be clear that these passages not only do not contain any positive or definite indication of the river Pahruli running south of the old river Kumari in the submerged old Pandinad but they would well fit in with the otherwise established fact that the Kumari was really in the southern-most border of the old Pandinad, whereas Pahruli formed the northern boundary of the southern province in Pandinad according to Adiyarkunallar:

"அவர் நாட்டுத் தென்பாலிமுகத்து வடவெல்லை யாகிய பஃறுளியாற்றிற்கும்"

The southern boundary of that southern province in Pandinad, which then formed the southernmost dominion in the old Tamil world, must also naturally be identical with the southern boundary of the pre-deluge Tamilaham, which is universally said to be the old river Kumari. Thus we see we have no other alternative but to conclude that the Pahruli could not have been south of the Kumari. We have now only to see how Adiyarkunallar's words would also bear out this truth.

The passages under review refer to three facts:—(i) the submersion of territory, (ii) the extent of the lost lands, and (iii) the point or limit up to which the old Tamil-spoken country was swallowed by the sea. On the first two items, namely, loss of territory, and extent of the lands lost in the first deluge, there is virtually unanimous agreement and no practical conflict of opinion (i) That the Pandinad or the Sentamil-Pandyan Kingdom of yore was submerged in the earlier historical deluge, and (ii) that the extent of the territory so lost comprised about 49 shires or districts are spoken of in these passages of Adiyarkunallar and are accepted on all sides to be correct. It is only as regards the 3rd item, that some difference of opinion is entertained in some quarters. That there exists no need nor warrant for any such different view is all we here attempt to show. (iii) The two limits of the lost area are also distinctly mentioned in the texts of both Ilango and Adiyarkunallar quoted above. Thus both these authors spoke of the Kumari and the Pahruli as forming the last limits in the south and the north to the territory which was originally the southern Pandinad submerged in the first-known deluge. The thesis of those who would put the Pahruli to the south of the Kumari is that as the destructive sea-swell swept from the south northward, and as in both the passages the first reference is to the Pahruli and as the Kumari is mentioned only afterwards, their authors should be taken to suggest that the Pahruli was the southern and the Kumari the northern natural limits of the lost lands they therein refer to. It need not be so in their context; and it would lead to irreconcilable conflict with the most definite and positive testimony of the

many earlier classical references to the Kumari as the southernmost boundary of the whole Tamil land. It is evident that the authors of both these passages were writing them from the northern strip of land above the Cape, and it may well be that facing south and speaking of the loss of the Tamil territory to their south, they naturally indicated the lost area by starting from the north near to them and ending with the most distant submerged southern Kumari river. They were not geologists engaged in framing a topographical record of all the sea-swallowed southern regions. They were only literary authors incidentally alluding in their classics to the traditionally believed loss of the pre-deluge Pandinad, which formed the southernmost part of the old Tamil world. Their object was not even to speak of all the lands lost in the first inundation. They were not interested in leaving notes of geographical interest to posterity. Their chief interest was literature, and their sole object here was to indicate the loss of the old domains of the primeval or prehistoric Tamil Pandyan monarchy. It is obvious that there was, and must have been, some non-Tamil area beyond the lost Tamil country. A river could exist only with lands on its either side. That the river Kumari was universally spoken of as the southernmost boundary of the old Tamilnad is proof positive of the facts that the entire old Tamil Pandyan kingdom lay north, and that some contiguous non-Tamil, non-Pandyan territory lay south of this old Kumari river. Ilampuranar, the oldest among the great commentators just gave expression to them when he wrote as follows:—

> " கடல் கொள்வதன்முன் பிறநாடும் உண்மையின்,
> தெற்கும் எல்லை கூறப்பட்டது.
> கிழக்கும் மேற்கும் பிறநாடு இன்மையின்
> எல்லை கூறப்படா வாயின."

(The river Kumari was mentioned as the Southern limit of old Tamilaham, for there was non-Tamil territory beyond that river; no eastern or western boundary was given here because there were no foreign lands to be marked off or demarcated against on those two sides of Tamilaham.) This positively belies the thesis that the Kumari flowed in the northern confine of the old Pandinad. If the latter were true, all land south of the Kumari would only be Tamil territory and so there would be no sense either in mentioning a river in the heart of Tamilaham as its Southern limit, or in omitting to mention any real southern boundary to mark off the Tamilaham from the non-Tamil territories beyond. This passage of Ilampuranar can have any meaning only if the Kumari river was really the southernmost bourn of the submerged Tamilaham. For it will then accord with both the two facts stated in this and in other old texts: (viz.) (a) The existence of non-Tamil land beyond the lost old

Pandinad (*b*) and the Kumari marking off the old Tamilaham on her southern side from all the non-Tamil area lying further south. Again, the statement in both the texts quoted from Ilango and Adiyarkunallar to the effect that the sea engulfed the Pandinad only up to the (northern) bank of the Kumari is also very significant and self-suggestive. If this lost river ran in the north of the submerged Pandinad and somewhere near the present cape of that name, then this statement would lead to an absurdity. The statement in the quoted passages is express on this point: "தடநீர்க் குமரி வடபெருங்கோட்டின்காறும் கடல் கொண்டொழிதலால்" "As up to the northern Kodu or river bund, the sea engulfed". If the Kumari indicated the northern limit of this lost old Tamil territory, then the residual Tamil coast on the south spared by the sea-swell that swallowed all land south of the Kumari river just up to her northern bund must be a broad strip spreading west to east and cannot be a promontory ending in a sharply tapering pyramidal peninsula or triangular territory as the present Tamilaham is. The loss of an entire river-bed up to its bund on the farther side cannot possibly result in a promontory.

Again, there is no meaning in specifying the northern boundary as the farthest limit of the lost Tamil lands, if the Kumari ran on the northern confine of the Pandinad. It were enough to mention the river alone; better still simply to say that all lands south of the present Kumari Cape were engulfed. Why mention two rivers neither of which formed the real extreme southern boundary of the lost Tamil territory ? Pahruli decidedly was not the southern boundary of the old Pandinad. For, Adiyarkunallar distinctly states that an entire southern province of Pandinad lay south of that river. The Kumari alone therefore could and must have been the southernmost boundary of the old Pandinad. For such a hypothesis alone satisfies the two conditions required in this context. It answers to and squares with the statement in the texts that Kumari was the southern bourn of the old pre-deluge Tamilaham; (2) and again, it best explains why the northern bund instead of the river alone is referred to as the farthest limit of the lost area. If the Kumari formed the frontier of the Tamil Pandinad on her south and of the non-Tamil territories in their north, then, one who wants to point to the farthest limits of the lost Tamilnad must stop short with the northern bund of this frontier river at which the southern limits of that old Tamilaham ended, and from the southern bank of which the non-Tamil territories spread southward. Thus we see these considerations also clinch the thesis that the Kumari must have flowed in the southern and not in the northern confines of the lost Pandinad.

Now reverting once more to the authors of the passages under review, their authors, Ilango and Adiyarkunallar, did not choose here to

give the minutiae of the subsidence, or to record the history of the sea-swell. They only cared to speak of the loss of the old Pandinad; and their words in these passages do ample justice to their intention. If they meant merely to allude to the deluge and all the damage it did in the remote, prehistoric times, and if the Kumari river formed the northern limit of the lost Tamil areas, there was no need whatever to mention the Pahruli at all, and they could have very well stopped with the Kumari and finished off saying that all lands to the south of that river were swallowed in the sea-swell. If another river like the Pahruli were here intentionally introduced in addition to the Kumari, the indication is irresistible that the authors intended to point out the two limits or boundaries of the Tamil territory whose loss they bemoaned in this context. And as they coupled the Pahruli here along with the Kumari, their meaning is unmistakable. They must be aware of, and should only be loyal to, the unimpeachable authority of all the older classical references to the Kumari as the southernmost boundary. It should not be taken as though they intend to contradict all earlier texts of established authority unless there be unequivocal indication of any such intention on their part. Their words in these passages in Ilango's epic and in Adiyarkunallar's gloss thereon, do no violence to the clear import of, and would quite consistently reaffirm, the theme in all the earlier texts. They simply suggest that from the northern bank of the Kumari which was on the southern confine of Tamilaham, the old Pandinad up to the Pahruli in the north was lost in the first deluge. This area, according to the tradition recorded by Adiyarkunallar in his passage included 49 districts of Pandinad, some hills and dales, forest glebes and fertile fields, valleys and villages, as also the primeval Pandyan metropolis—the old Madura City. All told, the area of the Pandinad lost in the fresh sea-swell was about 700 "Kavatams" or roughly 7,000 square miles. This is not a very large area. It is about the extent of the modern Travancore State, and not much larger than the old Madura district before its bifurcation into the present Madura and Ramnad districts. The forty-nine old nads are not to be equated with the modern British Indian districts in area. A nad in early Tamilaham was only a minimum unit, often applied to a group of very few villages and hamlets formed for expediencies of administration or by exigencies of feudal needs and municipal requirements.

No rational man could mistake the reference of Adiyarkunallar to 700 kavatams to mean merely on dimension of the long measure, or as giving only the longitudinal or linear length of the lost Tamil land. There can be no territory of land with length alone and without any width, no country standing on a hair-line ridge for seven thousand miles with no breadth even for a foothold. That will be an impossibility to

imagine and an absurdity to assume. The reference must therefore be only to the square area of the lost Tamilnad, which in this case was said to be about 6,000 to 7,000 square miles.

It may be asked why these passages should be taken to cover only the loss of Tamil country in the earlier or first of the two floods, and why it should not be an allusion to the total loss of all Tamil area up to the present Cape Comorin. The answer is simply and convincingly cogent. All traditions in Tamil literature posit two successive floods as accounting for the present map of contracted Tamilaham ending in the Comorin Cape. The recorded histories and traditions of the Singalese in Ceylon consistently confirm this thesis. Sanskrit classics like Valmiki Ramayana and Chanakya's Artha Shastra allude not to Madura old or new, lost or living, but only to Kapadapuram as the Pandyan metropolis. All these go to confirm the established Tamil tradition that Kapadapuram was founded by the Pandyas as their capital only after the loss of their old Madura with all their domains between the Pahruli and the Kumari caused by the first flood. Of course this second metropolis and all the strip of the Pandinad left beyond and north of the submerged Pahruli up to the untouched Cape region by the first sea swell was again swept and swallowed by another tragically destructive tide spoken of in Tamil literature as ending the 2nd era of its history in Kapadapuram. The exact extent or geography of this second cataclysmic subsidence is not detailed in this context by Adiyarkunallar, although Ilango Adigal's words may possibly be so interpreted as to cover the entire loss in one or more floods of a very extensive Tamil country from the proximity of the cape down to the old Kumari river, involving the subsidence and disappearance of many hills and valleys; of many cities and towns like the old Madura and Kapadapuram, and of old rivers like the Kumari and the Pahruli which adorned and enriched the sunken Tamilnad. But a discussion as to the credibility of the traditions about 2 successive floods and the historic value and significance as warranted by these and other classical references bearing on that aspect of the matter is not strictly relevant to the present enquiry. Whether the old Pandinad below the Cape was swallowed by the southern sea in one gulp or more, the only pertinent issue here is about the southernmost limit of that lost Tamil land; whether that limit was the Pahruli or the Kumari. We have seen so far that the old Kumari river formed the southernmost boundary of the submerged Pandinad, and therefore that could not have been north of the Pahruli. Thus in a nutshell it may be taken to be proved to the hilt that the ancient Tamilaham protruded far below the Cape into the Indian ocean; that the old Pandinad which was the most Tamilian of the Tamil kingdoms even in times of yore was in the southern extreme of the old Tamilaham, and

extended down to the very northern bank of the old river Kumari which then marked the Pandinad from the trans-Kumari non-Tamil tracts on its southern bank. The artificial stream Pahruli called into being by the enterprise of some Pandian potentates to irrigate and fertilise their metropolitan province formed the northern limit of the south Pandyan province, and so could not have run south of the Kumari that fringed the extreme southern confine of that kingdom. All the old texts in Tamil classics unanimously warrant only these conclusions which must therefore form the true basis for all researches into the history of the old Pandyan country and of Tamil culture.

Jagannātha Paṇḍita

By

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(*Continued from page 274, Vol. IV, No. 2*)

APPAYYA DĪKṢITA vs. JAGANNĀTHA PANḌITA

Appayya Dīkṣita, one of the literary geniuses of South India, flourished in the sixteenth century. His contributions to literary Criticism as embodied in his *Citramīmāṁsā, Kuvalayānanda*[1] and *Vṛttivārttika* are not so great and valuable as those to the Advaita and Śaiva systems of Indian Philosophy; yet he is ranked as one among the first-rate literary critics of the Post-dhvani period such as Mammaṭabhaṭṭa, Vidyānātha, Viśvanātha and Jagannātha Paṇḍita.

Jagannātha Paṇḍita, in his Rasagaṅgādhara and Citramīmāṁsākhaṇḍana[2], refutes some important views of Appayya Dīkṣita which he has elucidated in his Citramīmāṁsā and other works. As one of the introductory verses of the Citramīmāṁsākhaṇḍana states[3], he assures his readers that his refutations of his rival's views are based on sound logic and that if anybody free from bias, can convince him with cogent arguments that his criticism is baseless, he is prepared to kiss his feet at once.

But Nāgeśabhaṭṭa, Jagannātha's commentator, who flourished in the former half of the eighteenth century, *tries* (as will be shown be-

1. The *Kuvalayānanda* is the famous and very popular commentary on the *Alaṅkāra* section of Jayadeva's *Candrāloka*.

2. The Citramīmāṁsākhaṇḍana is mostly a compilation of his refutations of Appayya Dīkṣita's views, contained in the *Rasagaṅgādhara*, cf.

'Rasagaṅgādhare citramīmāṁsāyā mayoditāḥ |
Ye doṣāḥ te ſ tra saṅkṣipya kathayante viduṣām mude' ||

Citramīmāṁsākhaṇḍana, verse II.

3. Sūkṣmam vibhāvya mayakā samudīritānām
Appayyadīkṣitakṛtāviha dūṣaṇānām |
Nirmatsaro yadi samuddharaṇam vidadhyāt
Asyāhamujvalamateḥ caraṇau vahāmi. ||

ibid., verse 3.

low) *to vindicate* Appayya Dīkṣita in certain instances *with success;* yet *many of Jagannātha's refutations are still held conclusive among the students of literary criticism.*

(1) The first and foremost instance where these two authors differed considerably is that of *Rasadhvani* which they illustrated by the famous verse taken from the *Amaruśataka*[4] :

'Niśśeṣacyutacandanam stanataṭam nirmṛṣṭarāgo ʃ dharo
netre dūramanañjane pulakitā tanvī taveyam tanuḥ |
Mithyāvādini! dūti! bāndhavajansyājñātapīḍāgame
vāpīm snātumito gatāsi na punastasyādhamasyāntikam' ||
[A. Ś. V. 105. (N. S. Ed.)]

The simple meaning of this verse is this: 'Oh messenger! your breasts are free from all sandal-paste; your lower lip is devoid of red colour; your eyes are destitute of black pigment. Your tender body is full of horripulation. Oh liar! You have not realised the anguish of your dear friend. From here you have gone only to the tank for a bath and not at all to that cursed (husband)."

An *abhisārikā*[5] *type of nāyikā* had been waiting long for her husband, and since she was disappointed in her expectation, she sent him her servant as a messenger. The messenger actually went to him and she being lovely and fair in complexion, enjoyed the nāyaka and betrayed her mistress. On her return from the nāyaka, the nāyikā fully realised that her messenger had the love-intrigue with the nāyaka and addressed to her *not in plain language but in somewhat ambiguous terms.*

Appayya Dīkṣita argues[6] that though this verse *superficially* means that the messenger went to the tank and not to the nāyaka, yet it can be well interpreted in the sense that the messenger went to the nāyaka and enjoyed him. In doing so, he takes up all the adjuncts in the verse for a further scrutiny. The phrase *niśśeṣacyutacandanam stanataṭam* means that *only the upper part* of the breasts is completely free from sandal-paste; the phrase—*nirmṛṣṭarāgo ʃ dharaḥ*—means that *only the lower lip* is completely devoid of red colour; the phrase—*netre dūramanañjane*—also means that the eyes are destitute of black pig-

4. The Amaruśataka contains (more than) 100 beautiful verses on *sambhoga śṛṅgāra.* Just like in the famous Prākṛt Anthology *Gāthāsaptaśatī,* each verse in this work is independent and is called *muktaka-kāvya* in that fresh context is to be given for each verse.

5. An *abhisārikā* is one who either goes to her lover's house at night for courting, or expects her lover to go to her residence at the appointed hour.

6. Vide Citramīmāṁsā, pp. 2 and 3 (N. S. Ed.).

ment *only at the ends*; the phrase—*pulakitā tanvī taveyam tanuḥ*—means that the body though horripulated is very tender on account of great fatigue, etc. The word *adhama* also is appropriate in the context when it is interpreted in the following manner:—the nāyikā, though an *abhisārikā* yet possessing some noble virtues, had been very considerate enough to have forgotten all his crimes thitherto perpetrated and as such, at a disappointed hour she sent her messenger to her lord; but the fact that in spite of the nāyikā's request, the nāyaka enjoyed the very messenger, went beyond all her comprehension. Hence to her the nāyaka was an *adhama—very low and mean* (not in birth but *in action*). The negative particle *na* in the verse is taken along with '*vāpīm snātumito gatāsi*.' So, according to Appayya Dīkṣita, all words in the verse when well interpreted, *specifically* suggest the idea of *sambhoga śṛṅgāra, which in its state of not being subordinate to another is realised by a true sahṛdaya as super-normal pleasure.*

Jagannātha refutes[7] this interpretation very easily. He puts forward summarily *two* main objections to Appayya Dīkṣita's view—(1) *prācīnagranthavirodha* and (2) *upapattivirodha*. The first consists in that Appayya Dīkṣita while explaining this verse as a typical instance of Rasadhvani—an Uttamakāvya—has gone against the very nature of Dhvani as established by Ānandavardhana and Abhinavagupta of the Dhvani period and by Mammaṭabhaṭṭa and others of the Post-Dhvani period to which both Appayya Dīkṣita and Jagannātha Paṇḍita belonged. One great principle to be observed in a Dhvani Kāvya according to Ānandavardhana is that words or adjuncts in a *Kāvya* are to be so *common* and *ambiguous* (sādhāraṇa) that they can be interpreted alike in the light of the primary or secondary sense (as the case might be) and of the suggested sense. If they are *asādhāraṇas* (i.e.) denote *specifically* and *exclusively* one idea, that idea would be predominant in that Kāvya and the suggested sense, if there be any, would be only subordinate to that predominant idea.

Moreover, if the *asādhāraṇya* (exclusiveness) of the adjuncts is said to be the characteristic of Dhvani, it (Dhvani) would be not the *suggestion* peculiar to Kāvya (poetry) but the *inference* which is arrived at by the *asādhāraṇya*—invariable concomitance of a *hetu* (middle term) and a *sādhya* (minor term). If this is followed by Appayya Dīkṣita, Jagannātha contends, he would be bringing in into this illustration of the *Uttamakāvya* two antagonistic views of *dhvani* and of *anumāna*.

7. Vide Rasagaṅgādhara, pp. 12-17 and Citramīmāṁsākhaṇḍana, pp. 1-5 (N. S. Ed.).

To explain the *upapattivirodha* (want of cogency in argument), Jagannātha takes up the suggested idea in the verse as explained by Appayya Dīkṣita. According to him, the suggested idea in the verse consists in that the messenger went to the nāyaka alone to enjoy him (*tadantikameva rantum gatā asi*). For convenience, Jagannātha splits up this statement into two:—*tadantikagamanam* (her going to the nāyaka) and *tatphalam ramaṇam* (its fruit, viz., enjoyment). For the explanation of these two ideas, Jagannātha contends, there is no necessity for introducing *vyañjanā vṛtti* (the suggestive power) into this verse. The first idea can be well brought home to the readers even by the secondary significative potency (lakṣaṇā) by which a śabda, on the absurdity of the primary sense, is capable of conveying an idea which is either allied or even opposite to the primary sense. According to Appayya Dīkṣita, many words like *taṭa* in the verse would be fully significant only when they are interpreted in support of the messenger's wretched action, viz., her going to the nāyaka and secret enjoyment with him. Hence, if the verse primarily means only the messenger's departure to the tank for a bath, Jagannātha contends, the idea that she has gone to that wretched nāyaka, can be well conveyed by the verse by the secondary significative power of śabda.

That the second idea, viz., *the messenger's enjoyment—ramaṇa—is suggested*, cannot hold good. It can be very well *conjectured* or *presumed* (*arthāpattivedya*) from the nāyaka's attitude towards her husband especially when she addresses this verse to the messenger after her return from him. Her very reference to her husband in the verse as *adhama* makes one understand that he *then* became *wretched* by his action (his secret enjoyment with the messenger). That the nāyikā sent the messenger to her husband bears out the important fact that she as an *uttama nāyikā*, would not dare to speak in public of his low birth or anything else undesirable to mention.

Another *upapattivirodha* is also explained by Jagannātha here. The suggested sense in this verse, the *sambhoga śṛṅgāra* (as explained by Appayya Dīkṣita), would be only explanatory to the primary sense, for, without the former the latter would be absurd. Hence the verse becomes only an instance of *guṇībhūtavyaṅgya* (*vācyasiddhyaṅga*) and not of *Rasadhvani* as ancient Ālaṅkārikas expound.

To support the traditional view that this verse is an instance of Rasadhvani, Jagannātha gives the primary sense of the verse in a different way. He considers that the messenger neither went to the nāyaka, nor to the river for a bath, but only to a small tank in the neighbourhood, where in the midst of many youths she had not full scope for a full bath, so that only the *upper portion of her breasts* (not her chest) was free from sandal-paste, since she had to keep her two arms

crosswise upon her breasts; so, only the *lower lip* was devoid of the reddish colour on account of the spitting water while cleansing the teeth; only the *upper parts of her eyes* were destitute of the black pigment; her *tender body* was horripulated on account of her bath in cold water. The word *adhama* also expresses the idea that the nāyaka who did not realise other's sufferings caused her much mental pain and anguish (—an idea which being taken as common to both *vācyārtha* and *vyaṅgyārtha,* is in keeping with the nobility—*vaidagdhya*—of the character of the speaker—*nāyikā,* who would not dare to speak even to her messenger of her husband in any obviously contemptuous terms). And Jagannātha concludes that since the adjuncts in the verse are so *common* (sādhāraṇa) to both *vācyārtha* and *vyaṅgyārtha,* this verse can be well taken as an instance of the *suggestion* of the *śṛṅgārarasa;* and that this suggested idea cannot be in any way brought out by lakṣaṇā, in view of the fact that there is no *condition of lakṣaṇā,* viz., *anupapatti* (incompatibility of the primary sense).

(2) The next instance where both Appayya Dīkṣita and Jagannātha Paṇḍita held different opinions is another well-known verse taken from the Amaruśataka:

> " *praharaviratau madhye vāhnaḥ tatopi pareṇa vā*
> *kimuta sakale yāte vāhni priye tvamihaiṣyasi.*
> *iti dinaśataprāpyam deśam priyasya yiyāsato*
> *harati gamanam bālālāpaiḥ sabāṣpagalajjalaiḥ.*"
> [A. Ś. V. 12. (N. S. Ed.)]

" Would you, my lord! be back to this place on the expiry of a *prahara,* or at noon, or even later, or sunset—with such child-like bewailings, attended with flowing tears (a lady) prevents her husband from his journey to a place reachable in hundred days."

Appayya Dīkṣita opines[8] that in this verse the *vācyārtha,* viz., prevention of the husband from his journey is much supported by the *suggested sense,* viz. (that) the lady cannot bear her life any longer after the expiry of the whole day, and that as such, it is an instance of *guṇībhūtavyaṅgya* (*vācyasiddhyaṅga*).

But Jagannātha[9] asserts that this verse is a beautiful instance of Rasadhvani (i.e.) the suggestion of *vipralambha śṛṅgāra* (love in separation) which is effected by the three-fold conditions of *vibhāvas* like the nāyaka and the nāyikā, of *anubhāvas* like tears, and of *vyabhicāribhāvas* like mental anxiety. And he adds that the vācyārtha—the pre-

8. Vide Citramīmāṁsā, p. 4.
9. Vide Rasagaṅgādhara, pp. 18 and 19 and Citramīmāṁsākhaṇḍana, p. 5.

vention of the nāyaka from his long journey—is completed by other *vācyārthas* like *bālālāpas* (childlike bewailings) and as such, does not lean upon any *vyaṅgyārtha* (suggested sense). The instrumental case in the word—*bālālāpaiḥ*—well indicates that the bewailings of the lady (the meaning of the stem) are the main instrument (*karaṇa*) in preventing her husband from his journey.

To argue that the *suggested sense*, viz., that the lady cannot survive even the day of her husband's departure, supports the *vācya* sense is suicidal, in view of the fact that such an argumentation would result in the acceptance of some aspect of the *guṇībhūtavyaṅgya* even in the famous instances like '*niśśeṣacyutacandanam*' etc., for, the suggested sense in the verse 'niśśeṣacyutacandanam', viz., the dūtīsambhoga (the enjoyment of the messenger by the nāyaka), can be taken to be strengthening the vācya sense of the word *adhama*, so that the verse may be cited as an instance of *guṇībhūtavyaṅgya* (vācyasiddhyaṅga).

Jagannātha finally remarks that although one accepts the support of vācyārtha by the suggested sense (as described above), yet one cannot deny in this verse the realisation of the beautiful sentiment—the love in separation—by all Sahṛdayas—a fact which indubitably secures to it the position of *uttamottamakāvya*.

Nāgeśabhṭṭa, as has been observed, however justifies Appayya Dīkṣita's explanation that the verse in question can be cited also as an instance of guṇībhūtavyaṅgya without any prejudice to its being called a Rasadhvani, in view of the fact that it contains a *vyaṅgya* element quite subordinate to the *vācyārtha* (as described above). And he adds that Appayya Dīkṣita's citation of this verse as an instance of *guṇībhūtavyaṅgya* has got reference to the *āntarālika-dhvani*, and that such citations as the above do occur in Mammaṭabhaṭṭa's Kāvyaprakāśa.[10]

10. In connection with the classification of kāvya into *dhvani*, *guṇībhūtavyaṅgya* and *citra*, Appayya Dīkṣita has in his Citramīmāṁsā (p. 4, N. S. Ed.), illustrated one variety of *citrakāvya*—*ubhayacitra*—by the verse—

Varāhaḥ Kalyāṇam Vitaratu Sa vaḥ Kalpavirame
vinirdhunvannaudanvatamudakamurvīmudavahat;
Khurākhātatruṭyatkulaśikharikūṭapraviluṭha-
cchilākoṭisphoṭasphuṭaghaṭitamaṅgalyapaṭahaḥ."

Jagannātha in his *Citramīmāṁsākhaṇḍana* (p. 6. N. S. Ed.) asserts that this verse contains a good number of *poetic demerits* and as such, should not be given as an illustration for the Citrakāvya even. He mentions *Samāptapunarāttatva* as one great defect which consists in that the former half of the verse containing two complete ideas does not depend on the latter half (the knowledge of which arises necessarily after some time) and that, therefore, the latter is out of place. He also mentions other *doṣas*—*apadasthapadatva*, *vyāhatārthatva*, etc. He also asserts that such verses (as the above) should not be selected by critics as illustrations for

(3) Another instance where these two critics have considerably differed is Kālidāsa's famous *maṅgalaśloka* in his *Magnum Opus Raghuvaṁśa*—

" Vāgarthāviva sampṛktau vāgarthapratipattaye |
Jagataḥ pitarau vande pārvatī-parameśvarau || "

" For the understanding of words and (their) ideas, I prostrate before *Pārvatī* and *Parameśvara,* the parents of the world ever-united like *vāk* (speech) and *artha* (its sense)."

This verse is cited by Appayya Dīkṣita as an instance of Rasa-dhvani, viz., the suggestion of the supreme love of the *divine couple*—Pārvatī and Parameśvara. But Jagannātha refutes it on the ground that the *Rati* of the *divine couple* is in this instance *subordinate* to the main *vācyārtha,* viz., *vandana* (the poet's inferiority to Gods); that this *vandana suggests the devotion of the poet as the chief idea of the Maṅgalaśloka,* and that the suggestion of the love of the *divine couple* being subordinate to the *vācyārtha is only a Rasavadalaṅkāra* and *not a Rasadhvani.*[11]

(4) In the Vṛttivārttika,[12] Appayya Dīkṣita defined abhidhā as '*śaktyā pratipādakatvam abhidhā*', which may be literally rendered as 'abhidhā is that (capacity of śabda which) conveys its own sense by śakti. This is refuted by Jagannātha. The abhidhā to be defined is that power of śabda by the cognition of which one derives the recollection of meaning from a word. The *pratipādakatva* is nothing but that capacity of śabda being a condition of *pratipatti* (recollection), and this capacity is not the cause of *pratipatti.* How then, Jagannātha contends, can this *pratipādakatva* be *abhidhā?* Moreover, the definition—*śaktyā pratipādakatvam abhidhā*—would be tantamount to *abhidhayā pratipādakatvam abhidhā,* a definition which puts even the thing to be defined into the bosom of the definition.

(To be continued.)

the inferior type of Kāvya even, since no kind of *aesthetic pleasure* is derived therefrom by a true sahṛdaya.

11. Vide Rasagaṅgādhara, p. 34. *Rasavadalaṅkāra* is that where Rasa suggested becomes subordinate or accessory to the vācyārtha or some other thing, while Rasadhvani is that where Rasa suggested is the prominent idea. This is an important point specially emphasised by Ānandhavardhana in his Dhvanyāloka. Udyota II. Verse, 5.

'Pradhāne ʃ nyatra vākyārthe yatrāṅgantu rasādayaḥ |
Kāvye tasminnalaṅkāro rasādiriti me matiḥ' ||

12. Vide Vṛttivārttika, p. 1, N. S. Ed. and Rasagaṅgādhara, pp. 140—141.

The Date of Śrī Madhvācārya and Some of His Immediate Disciples

By

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My attention had been drawn to a somewhat sensational paper on "the date of Śrī Madhvācārya and some of his immediate disciples" published in the April (1933) number of the "*Prācīna Karnāṭaka*", Dhārvār, by Mr. Nārāyaṇācārya Śrīnivāṣācārya Rājapurohit. In view of much that is original and devastatingly anti-traditional in Mr. Purohit's paper, it seems necessary to thrash out the question once for all.

Mr. Purohit opposes the date 1118-1197 given by the Uttarādi and other Mutts, refuses to believe in the historicity of the Akṣobhyatīrtha-Vidyāraṇya debate and rejects the very order of succession: Padmanābhatīrtha, Naraharitīrtha, Mādhavatīrtha and Akṣobhyatīrtha amongst the four direct disciples of Madhva as traditionally believed and taught by the Mutts. Very naturally therefore, his paper has created a sensation among many orthodox followers of the Uttarādi and other Mutts. Though I do not at all agree with Mr. Purohit in many of his views respecting the date of Madhva, the order of succession amongst his disciples and the historicity of the debate between Akṣobhyatīrtha and Vidyāraṇya, I would, in a certain sense, welcome Mr. Purohit's paper. In the present state of extreme indifference to and supercilious disdain of historical questions which characterise our Mutts, and the so-called orthodox public, I should think that more papers of the type of Mr. Purohit's challenging the loose and unauthenticated traditions of the Mutts, would not be undeserved. They will awaken them to a sense of historical truth and force them to publish the unpublished works, inscriptions and other historical documents in their possession.

Mr. Purohit rejects the date 1118-1197 A.D. of the Mutt lists as well as the other 1238-1317 proposed by the late C. M. Padmanābhācār, Mr. C. R. Krishna Rau and myself. I have elsewhere[1] given my reasons for rejecting the date of the Mutt lists and need not recapitulate

1. Journal of the Annamalai University, vol. iii, No. 2.

them here. I shall, therefore, address myself to maintaining the suitability of 1238-1317 as the correct date of Madhva and showing the inadequacy of the date 1199-1257 now set up by Mr. Purohit.

II

The date proposed by Mr. Purohit is not altogether a new one. Several earlier writers like Bhandarkar, C. N. K. Iyer, and von Glasenapp had adopted 1199 A.D. or thereabout as the date of Madhva's birth mainly on the strength of a passage in his *Mahābhārata-tātparyanirṇaya.* Mr. Purohit while agreeing with the date of birth adopted by these, differs from them in reducing the life of Madhva on earth from 79 to 59 years. He sets aside the generally accepted order of succession to the Gurupīṭha among the four direct disciples of Madhva: Padmanābha Tīrtha, Narahari, Mādhava and Akṣobhya and places Narahari *last.* He adumbrates a novel theory that after the demise of Akṣobhyatīrtha, his disciple Jayatīrtha supplanted Narahari for three years on the pīṭha and resisted the latter's claims. The enmity so engendered between the two was afterwards responsible for the unfavourable criticisms which Jayatīrtha levelled against Narahari in his commentary on the *Karmanirṇaya* and for his ignoring him in the maṅgalācaraṇa-ślokas to his works. Finally, Mr. Purohit dismisses the story of the debate between Akṣobhya and Vidyāraṇya which is usually invoked in support of the date: 1238-1317, as a fabrication of later times.

Mr. P. stakes his all on the passage from the *Tātparyanirṇaya* which runs:—(XXXII—131).

चतुःसहस्रे त्रिशतोत्तरे गते संवत्सराणां तु कलौ पृथिव्याम् ।
जातः पुनर्विप्रतनुः स भीमो दैत्यैर्निगूढं हरितत्त्वमाह ॥

and which he renders as follows:—"When 4300 years in Kaliyuga were passing." गतिसुत्तिरलु[2] But the expression गते here seems to be used more in its general literary sense of "after the lapse of" than in any strict epigraphic sense of an "expired year, in which case a locative singular would have been more appropriate than the genitive plural:

संवत्सराणम्. [गते कलौ त्रिशतो त्तरे चतुः सहस्रे संवत्सरे सः जातः]

Even the most literal adherence to the text would only give us 1200 A.D. as the year of Madhva's birth and not 1199 A.D. *Siddhārthi* as Mr. P. wants. Moreover it seems hardly proper to make a fetish of

2. p. 1. The *Prācīna Karnāṭaka,* Vol. 2, No. 1. (April 33).

the literal sense of the phrase गते and take it as signifying the four-thousand-three-hundred-and-first year (current) in view not only of an inevitable conflict with the evidence of Naraharitīrtha's inscriptions but also of the presence of a uniform and consistent tradition (literary and otherwise) respecting Madhva's birth in a certain *Vilambi.* The *Tātparyanirṇaya* is no epigraphic record and its testimony should as far as possible be harmonised with established traditions and the evidence of inscriptions. Now, tradition has it that the Ācārya was born in a *Vilambi* and disappeared from vision on a *Piṅgala.* In the light of the statement of the *Tātparyanirṇaya* that Madhva was born after the lapse of 4300 years of Kali, we can easily fix 1238 Vilambi as the precise year of birth in question. Since Mr. P. himself is satisfied that tradition and the Mutt lists are right in placing the 'demise' of the Ācārya in a *Piṅgala,* we may safely assume that the same tradition and the same Mutt lists may be relied upon in the matter of the cyclic year of Madhva's birth being a *Vilambi,* even as assured by them. There is no reason why tradition and the Mutt lists should have committed a mistake in respect of *the year of birth alone.* The evidence of one of Naraharitīrtha's inscriptions dated 1281 makes it certain, as will be shown presently, that Madhva must have been *alive* in that year. Such a thing would be utterly impossible in the case of all those writers who place Madhva's birth in 1199 A.D. (*Siddhārthi*). Still more so in the case of Mr. P. who cuts short Madhva's span of life on earth from seventynine to fiftynine years.

In his own interests Mr. P. persuades himself that tradition and the Mutt lists cannot be wrong in placing the departure of Madhva in a *Piṅgala.* He urges that there are greater chances of the Mutts preserving in memory "the māsa, pakṣa and tithi of the Pontiffs' demise, since a knowledge of them is necessary for the celebration of the anniversaries of the departed Pontiffs." (P. 2). True. But whence has he made the discovery that a knowledge of the exact cyclic year of demise of a Guru in question is also essential for the celebration of his anniversary? The case is not different from that of an ordinary Śrāddha where a knowledge of the exact cyclic year of demise is needless. How then could the Mutts be trusted to have preserved it? If the cyclic years of demise of the several Gurus came to be preserved in uninterrupted continuity, for whatever reason, there is greater reason why the cyclic year of Madhva's birth should have been remembered as a landmark in the history of the Dvaita creed. Mr. P. makes the sapient comment "from the eleventh Guru onwards, the cyclic years of demise are historically tenable." (p. 4) What historical untenability Mr. P. can detect and point out in the cyclic year of Madhva's birth having been a Vilambi, I am unable to see.

The line of argument pursued by Mr. P. to discredit *Vilambi* as the cyclic year of Madhva's birth is indeed amusing. First of all, he attacks the statement of the *Aṇu-Madhvavijaya* which claims 4339 Kali (1238 A. D.) Vilambi, Āśvina Śuddha 10, Wednesday as the exact date of Madhva's birth. Mr. P. rightly appeals to the Tables of L. D. Svamikannu Pillai which show that Āśvija Śuddha Daśami fell in 1238 *not* on a *Wednesday* but on a *Monday*. This can only mean that there is a discrepancy of *two days* between the two. We may grant at once that the *Aṇu-Madhvavijaya* has made a mistake with reference to the week-day, if not also the Pakṣa etc. But should it necessarily be concluded from this that the statement of the cyclic year also is wrong?

Again Mr. P. pits the *Madhvāvatāra-māhātmya* (account of the life of Madhva) of the *Vāyu Purāṇa* against the Māsa, pakṣa and tithi sponsored by the late C. M. Padmanabhācār. It would appear that the account in the *Vāyu Purāṇa* places the birth of Madhva on a Māgha Śukla, Saptami, *Sunday,* of Vilambi. Again a reference to the Tables of Svamikannu shows that in 1238 A.D., *Vilambi* (which is the date adopted by C. M. P. Ācār) Māgha Śukla 7, fell on a *Thursday* and *not* on a *Sunday!* Here also, there is mutual disagreement between the authorities. But this disagreement is not sufficient to invalidate the *cyclic year of birth too.* Occasional discrepancies in the week-days and other minor details are not infrequent even in well-known inscriptions. The only reasonable procedure in such cases is to rectify the mistakes and make the necessary emendations. But the inscriptions themselves are not, as a rule, rejected *in toto,* as untrustworthy. Mr. P. himself ought to be aware that even in the famous Śrikūrmam inscription of Narahari Tīrtha, a similar discrepancy in the week-day has been noticed by scholars and the emendation सौर्ये (Saturday) instead of सौम्ये (Wednesday) suggested. In the circumstances, therefore, a fetish need not be made of the minor details of the month, day, etc., of the accounts of the *Aṇu-Madhvavijaya* or the *Vāyupurāṇa,* neither of which besides is an epigraphic record. The month, pakṣa and tithi of Madhva's *departure* have been more important to his followers than those of his *birth.* The cyclic year of his birth itself has as a special case been kept in memory. We have to be satisfied with that.

Mr. P. next tries to show that the date proposed by him 1199-1257 A.D. is not opposed to any of the internal evidences of the *Madhvavijaya.* In the xiii canto of the *Madhvavijaya,* mention is made of a King Jayasimha who was instrumental in the restoration of Madhva's library which had been stolen at the instigation of Padmatīrtha and other Monistic rivals, to the Ācārya. In response to an invitation from the King, Madhva moved south-west towards Kabe-nāḍ from the village of Koḍipāḍi where he was at the time camping. When he

reached Madhandīpa, information had reached Jayasimha who advanced in person to meet the Ācārya and joined him in the neighbourhood of the village of Śivamangala to the north of Kāsargoḍ. The *Madhvavijaya* gives a glowing account of the meeting of Jayasimha with Madhva. Jayasimha himself escorted Madhva to the temple of Viṣṇumangala, where the Ācārya was to stay for sometime and where, shortly after, he was to meet the famous Trivikrama Paṇḍitācārya, in debate.

Mr. P. identifies this King Jayasimha as the grandson of Kāmadeva, the Kadamba ruler of Hāngal, who ruled from 1181-1193, thro' his daughter "Suśīlā", on the authority of Mr. Ganapati Rau Igal's '*Ancient History of the S. Kanara District*' (in Kannaḍa).[3] Apart from the fact that the story of how the Kadambas came to be connected with Kumbla, is itself very legendary[4] even as narrated by Mr. Igal, (see P. 368) Mr. P.'s authority himself is not sure if "Suśīlā", the mother of "Jayasimha" was the daughter of the Kadamba King Kāmadeva (1181-93) or of Mayūravarman (1130-32).[5] Mr. P. should not, however, have so completely *suppressed this fact as he has done*. The date 1238-1317, cannot, therefore, be overthrown until it is definitely proved that Jayasimha the Raja of Kumbla and contemporary of Madhva, was really a grandson of Kāmadeva of Hāngal. But, that is yet to be.

Mr. P. similarly identifies "Īśvaradeva" mentioned in *Madhvavijaya* x, 4, with the Hoysala King Someśvara alias Vīra-someśvaradeva, who reigned from 1233-54, and rejects Mr. C. M. Padmanābhācār's identification of this King with Mahādeva of Devagiri (1260-71). I am afraid Mr. P's identification is even more roundabout than that of Mr. C. M. P. Ācār's which Mr. P. calls a '*Draviḍa-prāṇāyāma*'. I leave it to the readers to judge which of the two is more easily convertible into each other: Īśvaradeva and Mahādeva or Īśvaradeva and Somesvaradeva or Vīrasomeśvaradeva! ! Mr. P. further seems to think that there is no precedent for such conversions in the *Madhvavijaya*. But, I can assure him that it is not so. The author of the *M. V.* himself calls his own father "Trivikrama" which is his actual name, "Ayugavikramārya" (xiii, 69), "Ṣadardha-vikramārya" (xv, 72) and so on. His grandfather he styles as "Guha" (xiii, 43) whereas Trivikrama himself in his *Vāyustuti* gives his father's name as Subrahmaṇya

3. Mangalore Trading Association Press, 1923.

4. G. Moraes' *Kadambakula*, the best authority on the subject, makes no mention of the connection of the Kadambas of Hāngal with Kumbla, nor of any daughter of Mayūravarman or Kāmadeva.

5. Cf. "Innondara Prakara Mayūrvarmaṇu," p. 368, op. cit.

(Paṇḍita).[6] Other examples of the kind are many. After all, it must be obvious even to Mr. P. that poets reserve unto themselves the right to modify names to suit the exigencies of metre etc.

In my opinion, the presence of mere names like "Īśvaradeva" or the like, cannot throw much light on the date of Madhva unless we also know something more definite about them. In the present case, the *Madhvavijaya* does not tell us anything about the parentage of "Īśvaradeva, nor name the country over which he ruled. Under the circumstances therefore, one conjecture may be as good as another and no useful purpose can be served by parading them as 'internal evidences'. The case is slightly better in regard to Jayasimha; for there is room to connect him with the neighbourhood of Viṣṇumangala and Kāsargoḍ and thence with Kumbla. The chieftains of Māyappāḍi now represent the old royal family of Kumbla. But inquiries have failed to elicit any reliable geneo-chronological material from them. It would be well if some one having special facilities for conducting research in this drection would take up the matter and pursue it further.

Mr. P's. correlation of the story of the acquisition of the idols of Mūlarāma and Sītā by Naraharitīrtha is artificial. He says Narahari might have gone to Kalinga and assumed charge of the state for *sometime*[7] in 1257 and then brought Madhva the idols of Mūlarāma at the close of that year (Pingala). But the evidence of the inscriptions shows that Narahari was *in power* in Kalinga only between 1281 and 1293. No doubt there are two inscriptions of Narahari between 1264-1281. Apart from the fact that these record more or less minor gifts, there are no inscriptions prior to 1264 tending to show Narahari in any position of consequence in or about 1257. Mr. P. himself admits that Narahari's engagements as Regent prevented his accession to the Gurupīṭha for three years after 1290. (p. 17). It follows from this that Narahari could have got the idols (whether in appreciation of his services to the state or for whatever reason) either between the years 1281-93, when he was at the helm of affairs in the state, or afterwards. But Mr. P's date 1257 for the exit of Madhva renders the acquisition and *delivery of the idols at the time,* impossible.

Mr. P. as has just been pointed out, places the close of Narahari's regency in Kalinga in 1293. It is believed to have been of twelve years

6. Subrahmaṇyākhyasureh suta iti subhṛśam (Vāyustuti.).

7. शक 1179 पिङ्गल संवत्सरद आरम्भदल्लि नरहरितीर्थरु गञ्जामुदेशक्के होगि, अमात्यपदवियन्नुस्वीकरिसि नाल्कैदु तिंगळु राज्यभारावन्नु माडि etc.

duration and had in all probability begun in 1281. Out of a total of nine inscriptions of Narahari in the Kalinga country *only two* are dated *before* 1281. The rest are all distributed between 1281-93. The tone and wording of the inscription of 1281 make it clear that Narahari was virtual lord of Kalinga in that year, and seeing that there are five more grants between 1282-93, the period of Regency can reasonably be placed between 1281-93. In the famous Śrīkūrmam inscription of 1281, Narahari definitely tells us that he became "Protector of the Kalingas under instructions from his Master Ānandatīrtha":—

तस्माल्लोकसुरक्षणातिनिपुणात्संप्राप्तकर्तव्यधी-[8]
र्द्वेधामुत्र तथात्र योऽवति जनान्कालिङ्गभूसंभवान् ॥

These instructions can only refer to the assumption of the Regency even as the tenor of the expressions सम्प्राप्तकर्तव्यधीः and यो अवति show. Nay, whatever the nature of the instructions, their giver and recipient must both of them have been alive at the time. But according to Mr. P. Madhva had already departed this life in 1257 i.e., seven years before the earliest and *twentyfour years* before the famous Śrīkūrmam inscription of Narahari. Since Madhva ought, thus, to have been alive in 1281 and since even as acquiesced in by Mr. P. his departure from this life took place in a Piṅgala (certainly a Pingala after 1281) we are forced to recognise 1317 as the year of Madhva's exit. It is noteworthy that the inscriptions of 1264 and 1271 make no mention of Madhva's commands to his disciple. The very first mention of such advice or instructions, is in the inscription of 1281. Surely, Narahari cannot be referring to certain instructions given to him by Madhva in or before 1257, when he speaks of having become Protector of the Kalingas at the instance of his Master. The juxtaposition of the phrases 'having obtained instructions from that great Protector of the world' तस्माल्लोकसुरक्षणातिनिपुणात् संप्राप्तकर्तव्यधीः this Naraharitīrtha protects doubly the people of the Kalinga country' द्वेधामुत्र तथात्र योऽवति जनान् कालिङ्गभूसंभवान् leaves no doubt that the instructions related to nothing but the assumption of the regency by Narahari. Mr. P. unhappily, makes Madhva quit the world as far back as 1257. How, then, could he (Madhva) have anticipated a Regency which was going to arise *twentyfour years after* his exit from the world? We are thus obliged by the terms of the inscription of 1281, to grant that Madhva *was* alive in 1281 and that it was with his permission and blessings that Narahari assumed charge of the state. The

8. Ep. Ind., Vol. VI, pp. 263—5.

Acārya's exit from the world must therefore have taken place after this date. Mr. P. himself does not deny that the cyclic year of the event was a *Piṅgala.* And 1317-18 A.D. is the only one that would answer the requirement.

Mr. P. then tries to make use of the 'Madhva-Vidyāśamkara meeting' in support of his date. Since I have already exploded this myth in my paper on the subject in the *Journal of the Annamalai University,*[9] it is needless for me to go into details here. I shall therefore merely refer Mr. P. to my paper. Mr. P. very often protests against the "wanton and inexcusable misrepresentations of C. M. Padmanabhacar" (p. 9); but unfortunately, has not himself risen above a similar temptation. For he speaks unblushingly of the "*Madhvavijaya* narrating the story of a meeting between Madhva and Vidyāśamkara the then Svāmi of the Śṛṅgeri Mutt." (p. 20).

The critic tries to pooh-pooh the historicity of the famous debate of Vidyāraṇya and Akṣobhya Tīrtha on the purport of the '*Tattvamasi*' text. The story of the debate, if admitted as genuine, would render Mr. P's dates 1199-1257 and 1273-90 for Madhva and Akṣobhyatīrtha unsuitable. For the date of Vidyāraṇya is generally given as 1302-1387.[10] Hence Mr. P's anxiety to deny the historicity of the debate.

He opines at the outset that behind the epithet दुर्वादिवारणविदारणदक्षदीक्षम् applied to Akṣobhyatīrtha by Jayatīrtha in verse 4 of his *Tattvaprakāśikā,* need not necessarily lurk any allusion to any debate between Vidyāraṇya and Akṣobhya.[11] but that it may simply be a general eulogistic reference to victories over ordinary teachers of false doctrine. Of course, putting down of 'heretical doctrines' is a routine duty of all doctrinaires. And every one of Akṣobhya's friends: Mādhava Narahari and Padmanabhatīrtha must have done it in their own time. But Jayatīrtha does not refer to any of their exploits in this direction. He singles out Akṣobhyatīrtha alone from among the four disciples of Madhva and dubs him 'a lion in the matter of tearing asunder the elephant (or elephants) of a false teacher(s). There is evidently something more than meets the eye in this. I quite see that we need not be too anxious to detect allusions even where none exists; and I am personally prepared to

9. The Madhva-Vidyāśaṁkara Meeting—A Fiction. Journal of the Annamalai University, Vol. 111, No. 1.

10. *Sources of Vijayanagar History* p.

11. Such an allusion is assumed by Nārāyaṇa, author of the *Raghavendra Vijaya.*

leave it an open question. But the story of the debate between Akṣobhya and Vidyāraṇya rests upon firmer foundations than a doubtful and casual allusion in one of Jayatīrtha's verses. Unfortunately Mr. P. has chosen to take a prejudiced view of the matter and throws the whole blame of "concocting" the story of the debate and of Vedānta Deśika's participation in it as arbitrator, on (1) Doḍḍiācārya alias Mahācārya, the Viśiṣṭādvaitic commentator on the *Śatadūṣaṇī,* who flourished in the 16th century; (2) the Dvaitin Chalāri Saṃkarṣaṇācārya who wrote a *Jayatīrthavijaya;* and (3) "a pseudo Vyāsatīrtha" who folowed suit. But, he forgets that the very artificial style of the verse:—

तत्वमसिनासिना तं विद्यारण्यं मुनिस्तदाक्षोभ्यः।
अच्छिनदित्यवदद्यस्तं सेवे तत्वनिर्णये चतुरम् ।।

(Mahācārya, *Vedāntadeśika Vaibhavaprakāśikāstotra,* verse 77) shows it to be an adaptation from an earlier:—

असिना तत्वमसिना परजीवप्रभेदिना ।
विद्यारण्यमहारण्यमक्षोभ्यमुनिरच्छिनत् ॥

and not *vice-versa.* We must further enlighten Mr. P. that even among the Viśiṣṭādvaitins, Mahācārya was *not* the originator of the story of the debate.[12] The *Mūvvāyirappaḍi Guruparamparāprabhāvam* of Brahma-tantra-svatantra Jeer III, who was the third in succession from Vedānta Deśika on the Pīṭha of the Parakāla Maṭha at Mysore, and who

12. Mr. A. V. Gopālācārya, in his introd. to the *Yādavābhyudaya* of Deśika, with the commentary of Appayya Dikṣita, published from the Vani Vilas Press, Srirangam, (vol. i) observes with an air of profound impartiality:—"There can be no doubt that there was a reference, tho' different versions are given of the opinion pronounced. The Mādhvas claim that the decision was in their Ācārya's favour and was expressed by the sloka: असिना तत्वमसिना । The Advaitins claim that our author opined in favour of Vidyāraṇya and expressed his opinion by the verse: अक्षोभ्यं क्षोभयामास विद्यारण्यो महामुनिः । (Pp. xvi-xvii, introd.) A well-read Viśiṣṭādvaitin like Mr. Ācārya ought not to have forgotten that apart from the utter unlikelihood of Desika's having favored the Māyāvādins on this issue, the writers of his own school have made it quite clear that Deśika did wholly support Akṣobhya. The *claims of* the Mādhvas and Advaitins apart, there is no reason why Mr. Ācārya should so completely have *suppressed the evidence of the arbitrator's own party* recorded by Mahācārya and others, and permitted himself of a *suppressio veri* and a *suggestio falsi.* Considerations of sentiment and worldly prudence should not have disturbed historical facts. Perhaps Mr. Ācārya will be able to enlighten us re. the source of the Advaitins' alleged claim.

could not have been removed from Deśika by more than a hundred years, faithfully records the story of the debate and confirms the claim of the Dvaitins, in the following words:— " அப்போது விஜயநகரத்தில் தத்வவாதியான அக்ஷோப்பியமுனிக்கும் மாயாவாதியான வித்யாரண்யனுக்கும் வேதாந்தத்தில் வாதம் பிரவிருத்தமாக, இருவருடைய அபிப்ராயத்தையும் ராஜா பத்ரிகாமூலமாக வேதாந்ததேசிகன் சன்னிதிக்கு அனுப்பித்து யதார்த்தத்தை யறிந்து கொள்ளவேண்டுமென்று அனுப்பிக்க, வேதாந்த தேசிகனும் :—

असिना तत्वमसिना परजीवप्रभेदिना।
विद्यारण्यमहारण्यमक्षोभ्यमुनिरच्छिनत् ॥

என்று எழுதியனுப்பியருள, ராஜாவும் தேசிகன் திருவடிகளிலே ப்ரவணனுயிருக்க" (pp. 125-126 முவ்வாயிரப்படி குருபரம்பரா ப்ரபாவம் Vānibhūṣaṇam Press, Triplicane, Madras 1913.)

Brahmatantrasvatantra Jeer III, the author of the above *Guruparamparā*, is *anterior to* Mahācārya and expressly ascribes the authorship of the verse असिना तत्वमसिना to Deśika himself. In the circumstances therefore, Mr. P's sapient comments that " this verse is not to be found in any genuine work; that nobody knows who the author of the verse is " (p. 24) can only be treated with the contempt they deserve.

The *Jayatīrthavijaya* of Saṃkarṣanācārya has it that a stone-pillar of victory was also set up in commemoration of Akṣobhya's victory over Vidyāraṇya.[13] Of course Mr. P. who discredits the very fact of the debate cannot recognise the existence of any pillar commemorating the event. He refers to the traditional belief in the existence of a pillar only to dismiss it as blue moonshine. He further *quotes from a letter said to have been written to him* by *Prāktana Vimarśa-vicakṣaṇa* Rau Bahadur R. Narasimhacārya, late of the Mysore Archaeological Service, repudiating the existence of any such pillar or trace thereof at Mulubāgal (where the pillar is believed to have been set up). It is obvious that Mr. P. has not taken the trouble of going to Muḷubāgal and examining the spot himself before coming to any conclusion. But I must tell him and his learned informant that I have myself visited the place in Sep. 1932 *and have seen* with my own eyes two broken halves of what must originally have been a pillar of victory, on a hillock at Muḷubāgal. The pillar seems to have been meddled with by some unknown persons at an

13. स्तम्भं प्रतिष्ठाप्य जयाङ्कमश्मनः।

unknown date. The upper half measuring about ¾ yard in length, with facets at the top and some inscribed lines on its body, lies battered and broken amidst the rocks. The other half too lies lower down in the lap of the rocks. The upper half bears unmistakable signs of an inscription on its body having been forcibly obliterated by interested parties. A square base on which the pillar must once have been standing is clearly distinguishable on the surface of the rock. It is in the ridge of the rocks close to the base that the mutilated piece of the upper half of the Pillar is to be found. A diligent search at the place may enable the Archaeological Department to trace and recover the Pillar, i.e., the mutilated pieces. It may even succeed in deciphering the inscription to some extent. I have no desire to be dogmatic on the point that this mutilated pillar is the identical one set up in commemoration of the famous debate or that it does actually contain the śloka: असिना तत्वमसिना etc. But, I submit that such a thing is not improbable. The unfavourable attention which it has unmistakably received at the hands of interested persons only betrays that its contents could by no means have been commonplace but something out of the ordinary. Other facts such as that there is a Maṭha of Vidyāraṇya even to-day at Mulbāgal and a rock-cut Nṛsimha in worship at the Śrīpādarāja Mutt at Mulbāgal believed to have been set up by Akṣobhya Tīrtha, show that it is not unlikely that the meeting had taken place there.

Truth is sometimes stranger than fiction. We are sorry to disturb the conclusion of Messrs. P. and Rau Bahadur R. Narasimhacharya that the alleged existence of a Jayastambha commemorating the debate of Akṣobhya and Vidyāranya is a myth and an idle fabrication of certain over-zealous Mādhvas of later times. Attention has to be drawn to the following remarks of Lewis Rice, the eminent Director of Archaelogical Researches in Mysore, in his Annual Report for the year ending with June, 30, 1896 :—

"At Muḷbāgal, an inscription in Grantha characters, on a boulder was *brought to notice* which was said (?) to record the fact of a refutation of Vidyāraṇya by Akṣobhya Tīrtha, in a public disputation. But the inscription has been *lately purposely destroyed* so that only a few letters remain visible.[14] [Italics mine]

The Akṣobhya-Vidyāranya debate cannot thus be summarily dismissed as a pure concoction of later Mādhvas and Śrīvaiṣṇavas. It is a

14. It is interesting to note that as at present ascertainable, the Viśiṣṭadvaitins are the earliest to refer to the story of the debate.

fact tolerably well authenticated by some remants of epigraphic evidence and corroborated by sound literary evidence of sufficiently early date.[14] Mr. P. may as well remember that Mahācārya and Samkarṣaṇācārya are respectively three and two centuries older than himself. As for his objection that their evidence is not strictly contemporaneous with the times of which they were writing, we may observe that instances are not rare in history, where later sources faithfully record events which even closely contemporary ones ignore, or fail to chronicle. To mention one telling instance, the *Madhvavijaya* which refers to the conversion of Padmanābhatīrtha at the hands of Madhva, is completely silent over that of Naraharitīrtha, his Regency in Kalinga and the acquisition by him of the idols of Mūlarāma. We must conclude therefore that the debate between Akṣobhya and Vidyāraṇya is no fiction but a fact. Since the latter lived between 1302-87[15] the debate could only have taken place after 1302—say, somewhere about 1350 when all the three participants in it would have been of mature age. But, according to Mr. P's dates, there would be no room for the debate since Akṣobhya was already dead in 1290. Hence, the dates proposed by him are unsatisfactory.

II

THE ORDER OF SUCCESSION AMONG THE FOUR DISCIPLES OF MADHVA

The Mādhva tradition has it that after Madhva, his four direct disciples succeeded their Master, one after the other, in the following order:—Padmanābha, Narahari, Mādhava and Akṣobhya. Mr. P. arbitrarily *reverses* this order and *makes Narahari the last to occupy the Guru-pīṭha.* This he does in order to escape the conflict which the dates proposed by him for Madhva and Padmanābha Tīrtha engender with the inscriptions of Narahari. That is to say, according to Mr. P's calculations, Padmanābha Tīrtha was on the Pīṭha from 1257 to 1264. If Narahari were to be put down as his immediate successor, he must have ascended the Pīṭha in 1264, ruled till 1273, for a period of nine years traditionally ascribed to him *and died in* 1273. But the inscriptions show that Narahari was in Kalinga in the years 1264, 1271, 1281, etc., *and alive until* 1293. He could neither have been present in Kalinga and on the Pīṭha at the same time, *nor died* in 1273. Mr. P. therefore, proposes to change the traditional order of succession in such

15. Date as given in Dr. S. Krishnaswami Iyengar's *Sources of Vijayanagar History*.

a manner as would make Mādhavatīrtha and Akṣobhya succeed Padmanābha one after the other and make room for Narahari on the pīṭha from the year 1290 (Vikṛti) when Akṣobhya is taken to have died, without conflict with the inscriptions. It is a pity that Mr. P. has not stopped to consider if changing the order of succession is after all, the only way to avoid the conflict with the inscriptions. The entire difficulty under which he labours is self-created. May it not be that there has been some mistake in Mr. P.'s date of Madhva itself, which if rectified, would smoothen matters and reconcile the evidence of the inscriptions with the traditional order of succession? I should think it is so and that Mr. P. has set about raising a mare's nest for nothing. If Mr. P. had not too literally interpreted the passage of the *Mahābhārata-tātparya-nirṇaya,* and made a mess of it, he would have found other ways of reconciling tradition with literary and epigraphic evidence without disturbing the traditional order of succession. Even after revising the order of succession, Mr. P. is no nearer a reconciliation with epigraphic evidence. For, as we have already seen, Mr. P. places the demise of Akṣobhyatīrtha in 1290 (Vikṛti); but Narahari Tīrtha, as we know, was not free to ascend the Pītha until 1294, for he was engaged in Kalinga till 1293.

But Mr. P. is not to be disconcerted by this trivial difficulty. His is a resourceful brain and he forthwith propounds the startling theory that immediately on the demise of Akṣobhya, his disciple, the illustrious Jayatīrtha, succeeded him and held out tenaciously against poor old Narahari Tīrtha and successfully kept him off for a period of three years! Mr. P. further tries to give his theory an air of reality by magnifying certain interpretational differences between Jayatīrtha and Narahari into a regular warfare of rancour and rivalry between the two and tries to make capital use of the circumstance of Jayatīrtha criticising Narahari's interpretation of certain passages of the *Karma-nirṇaya* of Madhva, and *of his not saluting Narahari* as he does Padmanābha, at the commencement of his works! But then, Jayatīrtha has ignored Mādhavatīrtha too, in his mangalācaraṇa-ślokas, and surely, this cannot also be due to reasons of enmity to him! But what I cannot understand is the *raison d'etre* for Mr. P.'s elaborate attempts to show that Jayatīrtha was himself a student under Padmanābha Tīrtha before his ordination at the hands of Akṣobhya. I fail to see the relevancy of this question at all to the critic's thesis of Narahari coming last in the succession list.

Let us now turn to Mr. P's case for a revised order of succession among the four disciples of Madhva. It is no doubt necessary in the interests of his theory; but his necessity is no reason. The order now proposed by him is opposed to the carefully preserved and genuinely

transmitted traditions of the Mādhvas: oral as well as literary, as well as the uniform testimony of the genealogical tables of all the Mutts. The only semblance of external authority which Mr. P. is able to produce in support of his preposterous theory is that of an indifferent genealogical table of the Uttarādi Mutt published at the Hindu Printing Press, Uḍipi, in 1890. Even this, it will be seen, does not entirely support Mr. P. For, according to his own showing, it gives the names of the four disciples in *this* order: Padmanābha, Mādhava, Narahari and Akṣobhya; but *not* as Mr. P. would have it:—Padmanābha, Mādhava, Akṣobhya and Narahari. The variation that this Uḍipi table gives rise to need not be taken seriously. One can imagine a casual mistake arising out of hasty draughtsmanship. Very probably, it was never carefully scrutinized before passing finally through the Press. At any rate, Mr. P. must give greater credence to the uniform testimony of all the Mādhva Mutts without a single exception on this matter, than to the solitary specimen from Uḍipi. Besides the uniform tradition of the Mutts, we have literary evidences also, attesting the generally accepted order amongst the four disciples of Madhva.

Tho' most of the works attributed to Narahari Tīrtha himself are inaccessible at the present day, his commentary on Madhva's *Gītābhāṣya* is fortunately extant.[16] In the last of his introductory stanzas to his commentary, Naraharitīrtha is seen to salute Padmanābha Tīrtha (after Madhva) in the following terms:—

[तस्माच्छुत्वा शुकान्तर्गतवरवपुषा भारताद्यां सुविद्या-
माद्यो वायुः प्रधानः प्रधनमुपगतो ... ।
... ... कृष्णगीतासुभाष्यं
चक्रे भूचक्रगस्तं शरणमहमियां श्रीमदानन्दतीर्थम् ॥]
तत्कारुण्याप्तविद्यान् सुभरिहरितः (?) पद्मनाभार्यतीर्था-
दित्या मे संभवन्तो हरिचरण ... . ।
तत्पादाब्जे प्रणम्य प्रणतसुसुखदे कृष्णगीतासुभाष्यं
व्याख्यास्ये तत्प्रसादान्मम मतिममलास्ते प्रसन्नाः पुनन्तु ॥

16. The late Mr. D. M. Ramachandra Rau was the owner of a precious Ms., which I had occasion to examine thro' the courtesy of Rau Bahadur B. Venkatesacar of the Central College, Bangalore. This Ms., is the only one of its kind so far available. It is incomplete and breaks off abruptly with chap. 8, verse 4, of the *Gita*, and is full of lacunae and inaccuracies. It is a telling instance of the criminal negligence of the Mutts that this very ancient commentary on the *Gitabhasya* should still remain unpublished.

A close scrutiny of the foregoing 'mangalācaraṇa' would show that Narahari held Padmanābha Tīrtha in the highest estimation, that he is not likely to speak so passionately of him unless he had been his immediate predecessor on the Pīṭha. As direct disciples of Madhva, all the four Yatis—Padmanābha, Mādhava etc., were of equal status. The idea of one worshipping at the feet of the other would be inappropriate unless he was the immediate successor of the other on the Pīṭha. Nor is there any extraneous evidence that Narahari was very much younger than Padmanābha. It is extremely unlikely that Narahari would have displayed so much passionate regard for Padmanābha, if he had been a remote successor of his, by the third remove.

Whatever confusion might have arisen about the later and intermediate Pontiffs of the Mutts, the Mādhva tradition may safely be credited with having preserved in memory the order of succession touching the first four disciples of Madhva.

The illustrious Mādhva saint Raghūttama Tīrtha (1557-96) in one of the introductory verses to his *Nyāya-vivaraṇa-vyākyā*, confirms the traditional order of succession among the four disciples of Madhva:—

सुगुणनरहरि[2]-श्री माधवा[3]क्षोभ्य[4]तीर्थान्
हरिभजननियुक्तान् शुद्धधर्मार्थकामान् ।
सुजननियमनार्थं यः प्रसाध्यापरोक्षं
स भवतु मम भूत्यै पद्मनाभा[1]ख्ययोगी ॥

(Printed at Udipi)

Nārāyaṇa, the author of *Rāghavendra-vijaya*, a historical Kāvya of great merit, (c. 1700) speaks of Narahari succeeding Padmanābha Tīrtha:—(II. 7).

गुरोर्नियोगादधिगम्य राज्यं शिष्यस्तदीयो नृहरिव्रतीन्द्रः
गजेशकोशस्थितराममूर्तिं पूर्णप्रबोधाय समर्पयत्ताम् ॥

The *Narahariyati-stotra* of uncertain date, also supports the traditional order:—

श्रीमानम्बुजनाभतीर्थयतिराट् संपूज्य षड्वत्सरान्
श्रीरामं नृहरि तीर्थवरकरे दत्वा ययौ स्वःपदम् ॥ Verse 9.

It is interesting to note that the same order has been preserved in the Caitanya Sampradāya, which traces its origin from Madhva.[17] Bala-

17. Prof. S. K. De's attempted repudiation of the Mādhva-descent of the Caitanya sect, in the *Winternitz Commemoration Volume*, will be examined by me elsewhere.

deva Vidyābhūṣaṇa, a famous writer of this school and author of the *Govindabhāṣya* on the *Brahmasūtras*, and who wrote one of his works in 1765 writes as follows in his *Prameya-ratnāvali*[18]:—

तत्र स्वगुरुपरम्परा यथा—

श्रीकृष्ण ब्रह्म देवर्षि बादरायणसंज्ञकान् ।
श्रीमध्व श्रीपद्मनाभ श्रीमन्नृहरिमाधवान् ।
अक्षोभ्य जयतीर्थ श्री .... ।
देवमीश्वरशिष्य च श्रीचैतन्यं च भजामहे ॥

In the light of these evidences, the order of succession among the four disciples of Madhva can no longer be in doubt. Their dates of accession and demise would be:—

			Exit.
Śrī Madhvācārya	1238	(birth)	1317 (Pingala)
1. Padmanābha Tīrtha	1318	(accession)	1324 (Raktākṣi)
2. Narahari Tīrtha	1324	,,	1333 (Śrīmukha)
3. Mādhava Tīrtha	1333	,,	1350 (Vikṛti)
4. Akṣobhya Tīrtha	1350	,,	1365 (Viśvāvasu).
5. Jayatīrtha	1365	,,	1388 (Vibhava).

III

Mr. P. seems to imagine that greater intimacy and intercourse existed among Padmanābha, Mādhava and Akṣobhya than between them and Narahari; that the latter was consequently left severaly alone by the trio ; and that, judging from Jayatīrtha's partiality for the two, there was greater identity of interests and attachment between Padmanabha and Akṣobhya than between Padmanabha and Narahari. But, in the light of Narahari's own reference to Padmanābha Tīrtha in terms of overflowing love and devotion, in one of the opening verses of his commentary on the *Gītābhāsya,* and the testimony of Raghūttama Tīrtha already referred to, we cannot accept the view that Narahari was at any time treated as an 'undesirable' by the other three who formed a coterie by themselves into which Jayatīrtha sought *entrèe.* Moreover,

18. Vedānta Sūtras of Badarayaṇa, with the commentary of Baladeva, Tr. into English by S. C. Vasu, S.B.H., Vol. v, Allahabad, 1912.

the fact that both Narahari and Mādhava lie entombed at Humpi, by the side of Padmanābha Tīrtha while both Akṣobhya and Jayatīrtha alone have their tombs at Malkhed (in the Nizam's territory) shows that both Narahari and Mādhava bore a deep attachment to Padmanābha. As is well-known, Pontiffs usually arrange to spend their last days at the place where such of their Gurus or predecessors by whose side they wish to be buried, lie entombed. Even supposing that Akṣobhya could not, for some reason, arrange to spend his last days at Humpi in the vicinity of the tomb of his friend and predecessor Padmanābha Tīrtha, but was forced to breathe his last at Malkhed where he was subsequently buried, it passeth strange, especially from the point of view of Mr. P's theory, that Jayatīrtha too, who was as Mr. P. protests, very much attached to Padmanābha Tirtha, and had in addition owed his insight into Adhyātmavidyā to him (pp. 16 and 17 of Mr. P's paper), should have preferred to be away from the place of burial of his dearly-loved Master, Padmanābha and preferred the company of Akṣobhya.

Mr. P's theories of (1) Narahari Tīrtha's detention in Kalinga for three years after 1290; (2) the assumption of charge by Jayatīrtha during the interval; (3) the latter's refusal to hand over charge when required by the former; and (4) the consequent rivalry and hatred between the two, are all funny in the extreme. Just at the outset of his paper (p. 2) Mr. P. opines that the *cyclic years* of demise given by the Mutt lists are quite correct not only in the case of Madhva, but of all other Pontiffs. So far so good. The Mutt lists definitely state that Narahari's demise took place in a Śrīmukha. But the only Śrīmukha immediately after 1293 (the year of Narahari's last inscription in Kalinga), is 1333 A.D. This would invalidate Mr. P's date for Narahari. Hence he reverses the years of demise of Mādhava, Akṣobhya and Narahari and *makes Mādhava die in the cyclic year in which Narahari is said to have died, Akṣobhya in that of Mādhava and Narahari himself in that of Akṣobhya!* And yet, Mr. P. has the *naivette* to observe that the Mutt lists are quite reliable in regard to the cyclic years of demise!

No doubt, Narahari continued as Regent in Kalinga for three years from 1290—(the date of Akṣobhya's demise according to Mr. P.) and could not, let us agree, for argument's sake, return to take charge of the Pīṭha immediately. But, Akṣobhya himself had occupied the Pīṭha even according to Mr. P. for seventeen long years and had taken charge at least *two years before* Narahari assumed the Regency (1281). If an honest man, Akṣobhya must have informed Narahari that his turn would come next and asked him to hold himself in readiness for any emergency. Even if Akṣobhya like his disciple Jayatīrtha, had no soft

corner in his heart for Narahari, the latter must have known that he was the next to succeed to the Pīṭha, and would not under the circumstances, have committed himself to other engagements, at his own pleasure, at a time when such engagements might jeopardise his chances on the Pīṭha!

If Akṣobhya had died so unexpectedly towards the closing part of Narahari's regency, the latter is not likely to have stayed off for three more years (especially when the young ruler on whose behalf he was acting was already fifteen years old). But there we find him in Kalinga, in 1291 A. D. entirely oblivious of anything that had happened to Akṣobhya—coolly making gifts to the temple at Simhācalam, "for procuring his long life, health, *fame* and merit"! If anything, this inscription of 1291 shows Narahari to have been entirely unaware of the great change in his spiritual fortune (which according to Mr. P. had taken place in 1290). He is content to do his duty by his people, and is strenuously praying for long life, health and fame and merit, in the spirit of a full-blooded monarch. It must be admitted that Narahari would not, if he had known the change in his fortune, have missed or delayed the prospect of worshipping the idols Mūlarāma, which he himself had procured for Madhva, for any number of Kalingas in the world. Indeed there were so many ways of relief for him. The people of Kalinga would forthwith have relieved him as soon as the good news of his succession to the Pīṭha became known. We are unable to see how Jayatīrtha even if he wanted to do so, could have for a moment resisted the claims of so powerful a person as Narahari who was moreover his senior, and a direct disciple of Madhva. Had he attempted any such thoughtless proceeding, the people of Kalinga would have 'lynched' Jayatīrtha on the spot. Mr. P's theory is, in short, as absurd as it is original.

But that does not prevent him from developing it to its logical perfection! Jayatīrtha is made to usurp the Pīṭha in 1290 and resist Narahari when he comes forward with his claim. For sometime till 1293 Jayatīrtha succeeded in keeping out Narahari. But at last Jayatīrtha was forced to surrender. Disgruntled, he conceived an undying hatred for Narahari for ever afterwards, and being powerless to do anything else, began to vent his ire against his enemy by picking holes in his interpretation of certain passages of the *Karmanirṇaya* etc., and ignoring him altogether in his mangalācaraṇas!! A theory such as this can do credit but to a schoolboy. With all the respect due to Naraharitīrtha both in virtue of his seniority and of his being a direct disciple of Madhva, and a great benefactor to the cause of Dvaita philosophy, Jayatīrtha might still have differed from him in the interpretation of certain passage in the works of Madhva. This need not be magnified

into a case of mutual enmity prompted by political motives. Only a diseased brain would be prone to do so. Instances of such pure academic differences are not wanting in the history of Dvaita literature. Jayatīrtha himself, does not hesitate to differ[19] from and criticize[20] (?) Padmanābha Tīrtha on occasions (despite his alleged studentship under him). Mr. P. ought in strictness to extend his theory of enmity and usurpation even to Padmanābha Tīrtha. Rāghavendra Svāmin criticises Yadupati's interpretation of certain texts[21] of the *Nyāyasudhā* of Jayatīrtha. Jagannātha Tīrtha, (c. 1710) in his *Bhāṣya-dīpikā*, criticises the interpretations of Raghūttama,[22] Vādiraja[23] and Rāghavendra Svāmin.[24] It would be absurd to attribute motives in all these cases. We can only attribute Jayatīrtha's attitude to the earlier commentators, to his intellectual honesty and independence and not at all to spite. "The author of the *Nyāyasudhā*, with his cold and passionless logic is not the person to be carried away by personal bias even in respect of the members of his own school." Nor is Jayatīrtha so completely wanting in appreciation and approval for Narahari's interpretations, as Mr. P. in the interests of his theory assumes. Under II, 50, of Madhva's *Gitābhāṣya* Jayatīrtha, after giving his own explanation of the text: मग्नस्याह परेऽज्ञाने (Mokṣadharma 307, 83) quotes an alternative explanation offered by Narahari Tīrtha, with approval.[25]

One should think that it is with a view to placing greater barrier between Padmanābha and Narahari that Mr. P. has chosen to put forward the theory of Jayatīrtha's pupillage under Padmanābha Tīrtha. But the evidence in favour of it is next to nothing. Such a theory, moreover, is sure to lead to serious fallacies and complications. Jayatīrtha himself does not expressly state that he studied under Padmanābha Tīrtha as he does with reference to Akṣobhya. What Mr. P. considers as evidence in this connection, is not really so. The third introductory verse from Jayatīrtha's *Gītā-tātparya-nyāyadīpikā* which Mr. P.

19. *Nyayasudhā*, p. 222, line 15. (Bombay Edn.)
20. On the definition of आप्ति p. 6, op. cit.
21. *Sudhāparimala*, p. 30, line 9.
22. P. 779, 803, etc., (Madras, 1900).
23. On the interpretation of the Ṛg Vedic term " घम समन्तात् P. 177.
24. B.S. ii, 2, 3, (*Tantradīpikā*).
25. अपरेतु, ब्रह्मणैक्यमापन्नस्य मुक्तस्य पूर्वदुःखानुस्मरणमस्ति न वा? नेति पक्षे, मग्नस्य हीत्युक्तो दोषः। आद्ये किमसौ पृथक् स्मरति उत ब्रह्मात्मक एव। प्रथमस्य दूषणं 'न चैकीभूतस्य' इति। द्वितीयस्य 'आसम्' इत्यादि इति व्याचक्षते।

quotes with an air of importance,[26] contains nothing in support of the view that Jayatīrtha was ever an actual student under Padmanābha. It so happens that Padmanābha himself has left a commentary on Madhva's *Gītā-tātparya.* When Jayatīrtha at the outset of his own commentary on the *Gītātātparya* eulogises Padmanābha and says that without his help it would be impossible to understand the truth, he is evidently referring to his own indebtedness to Padmanābha's commentary on the *Gītātātparya,* in writing his own. In a general way also, J. is quite right in acknowledging his indebtedness to Padmanābha; for, barring Trivikrama Paṇḍitācārya, Padmanābha is the only other ancient commentator of renown on Madhva's works. In a sense, he is even more important than Trivikrama; for, he is the earliest known commentator on Madhva's *Daśa-prakaraṇas,* the *Brahmasūtrabhāṣya, Anu-vyākhyāna, Gītā-prasthāna,* etc., while Trivikrama contented himself with a commentary on the *Sūtra-bhāṣya.* Consequently, Padmanābha is the earliest "Ṭīkā-kāra" on Madhva, in the wider sense of the term. No wonder then, that Jayatīrtha who is again the next great commentator on a majority of Madhva's works, eulogises Padmanābha Tīrtha as a pioneer commentator but for whose services, the works of Madhva would be a sealed book to posterity: न तत्वमार्गगमनं.विनायदुपजीवनम् The sentence, it will thus be seen, is more a general appreciation of Padmanabha's services to the cause of the Dvaita Vedānta than a specific reference to Jayatīrtha's having been taught by him. It may be noted that the expression उपजीवनम् is advisedly used instead of उपदेशनम् ।

The next verse from the *Nyāyadīpikā* which also Mr. P. quotes,[27] has nothing to do with Padmanābha. It is or can easily be taken to be, a reference to Akṣobhyatīrtha who is the avowed[28] Guru of Jayatīrtha.

The other verse from the *Tattvaprakāśikā,* कृपालवः पङ्कजनाभतीर्थाः कृपालवः स्यान्मयि नित्यमेषाम् is couched in too general terms to have any special bearing on the point at issue. For the reason already suggested Jayatīrtha has every reason to refer to Padmanābha and pray for his grace, without any fear of being thereby

26. स पद्मनाभतीर्थार्यं गोगणोऽस्तु दृशे मम ।
न तत्वमार्गे गमनं विना यदुपजीवनम् ॥
27: प्रणम्य चरणद्वन्द्वं गुरूणां तत्कृपाबलात् ।
व्याकरिष्ये यथाबोधं गीतातात्पर्यनिर्णयम् ॥
28. आक्षोभ्यतीर्थगुरुणा शुकवच्छिक्षितस्य मे ।

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misunderstood to acknowledge him as his Vidyāguru. Jayatīrtha is not to blame, if persons like Mr. P. insist on misconstruing him for their own purposes. A comparison of Jayatīrtha's *Tattvaprakāśikā* with the *Sattarka-dīpāvali* of Padmanābha recently published by me,[29] would show how closely Jayatīrtha follows in the wake of Padmanābha. This would again reinforce J's estimate: नतत्वमार्गं गमनं विना यदुपजीवनम्. But all this does not prove that Padmanābha was the Vidyāguru of Jayatīrtha. Elsewhere in his *Nyāyasudhā*, J. refers to a certain view of Padmanābha. But, the terms in which he refers to him :टीकाकारास्तु मन्यन्ते are scarcely such as would betoken the latter's विद्यागुरुत्व to him.

Mr. P. commits himself to the following statements: — (1) Jayatīrtha received his initiation into the fourth order from Akṣobhya after 1273 A.D. (2) But even as early as nine years before his ordination, he had 'studied philosophy' under Padmanābhatīrtha, for some time till about his sixteenth year.[30] (3) The proof of J's ordination at the hands of Akṣobhya is furnished by the verse: —

अक्षोभ्यतीर्थगुरुणा शुकवच्छिक्षितस्य मे ।
वचोभिरमृतप्रायैः प्रीयन्तां सततं बुधाः ॥

occurring at the end of his *Gītābhāṣya-Prameyadīpikā.*

We shall now examine the implications of these statements. Mr. P. grants that Jayatīrtha took orders from Akṣobhya *not less than nine years after the demise of Padmanābha.* He had already 'studied philosophy' under Padmanābha during the latter's lifetime and was about 16 years old at the completion of his studies. But the entire absurdity of this theory becomes clear when we turn to Jayatīrtha's deliberate statement touching the period of his studies under Akṣobhyatīrtha : —

अक्षोभ्यतीर्थगुरुणा शुकवच्छिक्षितस्य मे ।

[I have been taught like a parrot by Akṣobhyatīrtha.] Remember that according to Mr. P's own calculation, Jayatīrtha was well-nigh twenty-five years of age at the time of his ordination by Akṣobhya. When a person like J. says that he was "tutored like a parrot" by his Guru, we

29. The *Catus-Sūtrī Bhāṣya of Śrī Madhvācārya,* with three ancient commentaries, Introd. etc. Law Journal Press, Madras. (Rs. 2-8-0).

30. This would mean that Jayatīrtha was sixteen years old when he completed his studies under Padmanābha Tīrtha and twenty-five when he was ordained a monk by Akṣobhya.

can only conclude that he was a novice absolutely raw and untutored when he came to Akṣobhya. This agrees well with the traditional account of J's ordination according to which he was the son of a wealthy and powerful chieftain (Deshpande) of Mangalveḍh (near Pandharpur) born with the proverbial silver spoon in his mouth, happily married even when young, to two wives, a keen sportsman and a good rider to boot. Obviously, he was anything but philosophically inclined at the time of his meeting with Akṣobhya, a gay, light-hearted youth (drinking water direct from the river, from on horseback, even without the aid of his hands!—an act which did not fail to scandalize the pious on-looking Akṣobhya.) No wonder then, that such a youth had to be gently taken in hand, and tutored like a parrot with infinite patience and cheerfulness—a by no means easy task. Looking back to his own student-days under Akṣobhya, Jayatīrtha must have been so thrilled at the contemplation of the arduousness of the task which his Master had undertaken, and accomplished so well, that he (the disciple) was forced to acknowledge his everlasting indebtedness to his Guru—(not without a vein of humour)—in memorable terms :—

अक्षोभ्यतीर्थगुरुणा शुकवच्छिक्षितस्य मे ।

And yet Mr. P. asks us to believe that this Jayatīrtha had already 'studied philosophy' under Padmanābha Tīrtha during his pontifical days, before he ever came to Akṣobhya Tīrtha! (P. 16 of Mr. P's paper). Nay, that he was nearly sixteen years of age when he had finished his studies under Padmanābha from which he derived such lasting benefit as stood him in such good stead in writing his *Nyāyadīpikā*. Was this the illustrious disciple who had to be taught again (some nine years later) "like a parrot" (in the disciple's own words) by Akṣobhya ? Had he so completely lapsed into fontal ignorance during so short an interval ? Could such a disciple be expected to do credit to his Master ? :—

उपदेशं विदुः शुद्धं सन्तस्तमुपदेशिनः ।
श्यामायते न विद्वत्सु यः काञ्चनमिवाग्निषु ॥[31]

Nor can it be that J. "studied philosophy" (as Mr. P. so happily puts it) under Padmanābha *after* his ordination and training at the hands of Akṣobhya. For, then, Padmanabhā was already dead nine years at the time of the accession of Akṣobhya. Nor is there any evidence that J. first studied the alphabet under Akṣobhya, then went over to Padmanābha to "study philosophy",

31. *Mālavikagnimitra*, ii, 9.

and came back to Akṣobhya to be initiated into the fourth order. For the fact remains that J. acknowledges no Vidyāguru save Akṣobhya. Mr. P. had he been clear-headed, would have put forward some such theory in order to make it possible for J. to have been a pupil under both Akṣobhya and Padmanābha. Instead, he has entangled himself in an utterly impossible and self-contradictory theory. And all as a result of a craze for novelty and sensational romance in Oriental research. And he has had his reward !

Abhiṣeka-Nāṭaka

(An English Translation with Notes.)

K. R. PISHAROTI.

Trimsacchloki
ṬĪKĀSAHITĀ

EDITOR : K. R. PISHAROTI

Abhiṣeka-Nāṭaka

ACT IV.

[Then enter the Vānara chamberlain.]

Kāñcukīya. Ho! Ho! Commander, order out the well-equipped Vānara hosts.

[Entering]

Commander. Sir, why this preparation?

Kāñcukīya. Information of Rāma's wife, queen Sītā, has been brought by the worthy Hanūmān.

Commander. What's it, what's it?

Kāñcukīya. Listen:

> The princess lives at Laṇkā, a prey to great sorrow and troubled by Rāvaṇa who has abandoned the path of virtue. Then solicitous of the accomplishment of the purpose of Rāma who was greatly overcome by sorrow, our king, on hearing this news, has ordered out the well-equipped and dreaded Vānara army. (1)

Commander. I see. As His Majesty orders.

[Exeunt.

Viṣkambhaka[1]

[Then enter Rāma, Lakṣmaṇa, Sugrīva and Hanūmān.]

Rāma.

> I have crossed over the cloud-like mountains, impassable with their big peaks and caves, rivers from whence lions and tigers and lordly elephants have drunk water, and big forests wondrous with trees richly laden with fruits and flowers; and

1. The *Viṣkaṁbhaka* tells us that the information of the whereabouts of Sītā has been passed on to the headquarters of Sugrīva and without loss of time preparations were made to start for Laṅkā with the army.

now have I come, accompanied by the Vānara army[2], to the shores of the ocean. (2)

Lakṣmaṇa. Here, here is the divine Varuṇa !

With his waters blue like the lordly, water-laden clouds and adorned with the lovely wreaths of dancing waves and foam, and with his thousand hands of rivers, the Lord of waters shine like Hari lying down. (3)

Rāma. What, ho ! What ?

Me who am (come) ready with my arrows to destroy the enemy, the Ocean prevents to keep him alive ?[3] (4)

Sugrīva. Look at the sky !

Whence can this Rākṣasa be, similar unto the cloud freshly laden with water, whose body is resplendent with ornaments of pure gold, rushing quickly down like moth entering into fire ? (5)

Hanūmān. Listen ye, all Vānara leaders ! Be vigilant all of you !

With mountains, with trees, with fisted hands, with teeth, with nails, with knees and with loud roars, stand ready now, O Vānara chiefs, to kill the Rākṣasa and protect our king.[4] (6)

Rāma. Rākṣasa, is it ? Hanūmān, enough, enough of your flurry !

Hanūmān. As my Lord orders.

[*Then enter Vibhīṣaṇa.*]

Vibhīṣaṇa. Ha ! I have now reached the camp of Rāghava's army. [*Thinking*] I have not sent a messenger, I have not announced my arrival, (and) I am a kith of the enemy.[5] How will the worthy sire, Rāghava, receive me ? For :

2. This shows that the army has reached the shores of the ocean.

3. Rāma assumes that the Ocean has a purpose to keep him off, namely, to make it secure for Rāvaṇa. Here is some amount of doubt and of anger.

4. Note the equipment of the Vānara hosts. This compares most unfavourably with that of the army of Rāvaṇa.

5. Well-placed is Vibhīṣaṇa's doubt. He has no credentials ; he has not announced his arrival ; and he is related to a very powerful enemy. He trusts himself to the good sense of Rāma and his own purity of motives.

My mind is anxious as to what the Lord of Raghus will tell me who am the brother of him before whose angry self even Indra, accompanied by the *devas*, is unable to stand in the field of battle. (7)

Or,

The lover of his dependents, the virtuous Rāma, knows well the truth of *Dharma* and *Artha*. Why should I who am innocent doubt him ? (8)

[*Looking down*] This is the tent of the lord of the Raghu's race. I shall get down. [*Getting down*]. Ah, standing here I shall announce my arrival to the lord.

Hanūmān. [*Looking up*] Ah ! The worthy Vibhīṣaṇa !

Vibhīṣaṇa. Ah, Hanūmān ! Hanūmān,[6] inform the lord of my arrival.

Hanūmān. Well. [*Approaching*] Hail, my lord, victory !

The virtuous Vibhīṣaṇa who has been exiled by his brother on account of you, O king, is here come, seeking your protection.[7] (9)

Rāma. What Vibhīṣaṇa come seeking protection ? Lakṣmaṇa, go welcome him and bring him along.

Lakṣmaṇa. As my sire orders.

Rāma. Sugrīva, thou desirest to speak something ?

Sugrīva. Lord, the Rākṣasas are adept in *māyā* and practice deceit. Hence he may be allowed in after full deliberation.

Hanūmān. Your Majesty, nay, not so :

as we are devoted to the lord, so, I believe, is Vibhīṣaṇa. In his own city I have seen him even arguing against his brother. (10)

6. He is glad to see Hanūmān, particularly because of the doubt mentioned before.

7. Note the happy way in which Hanūmān introduces him. He comes to them, because he is exiled by his brother for having championed Rāma's cause. See Verse 10 following, where he emphasises that Vibhīṣaṇa is their friend.

Rāma. I see. Go, welcome him and bring him in.

Lakṣmaṇa. As my sire orders. [*Walking about*] Here is Vibhīṣaṇa ! O Vibhīṣaṇa ! Thou art doing well ?

Vibhīṣaṇa. Ah, prince *Lakṣmaṇa !* Prince ! I have now reached here safe.

Lakṣmaṇa. Let us approach my brother.

Vibhīṣaṇa. So be it.

[*Both approach*]

Lakṣmaṇa. Victory, sire !

Vibhīṣaṇa. Be pleased, my lord ! Hail, my lord.

Rāma. Ah ! Vibhīṣaṇa ! Vibhīṣaṇa, thou art well.

Vibhīṣaṇa. Now, my lord, have I become well.[8]

> A refugee have I come seeking shelter in you, O lotus-eyed Lord, and now I am alright, O king, freed of all my sins by a vision of you. **(11)**

Rāma. From this day forwards you are, I say, king of Laṅkā.[9]

Vibhīṣaṇa. Blessed am I.

Rāma. Vibhīṣaṇa ! Because thou hast come, accomplished is my purpose.[10] How to cross over the ocean I do not, indeed, know.

Vibhīṣaṇa. Lord, what is there to know ? If a way is not given, you will send a divine missile at the Ocean.[11]

8. Note his speech. He says that now he has become *kuśalin*—happy and prosperous. For, till now he was exposed to the anger of Rāvaṇa and his life was at stake ; now having reached Rāma, he has attained safety. Again now he is in his own element—in *satya* and *dharma*.

9. Rāma now accepts Vibhīṣaṇa as the king of Laṅkā.

10. The question may be asked why Rāma speaks like that. Is it because that Rāvaṇa has not the support of the whole of Laṅkā in his nefarious activities ? Or is it because he counts upon the active help of Vibhīṣaṇa in his prospective conquest of Laṅkā ? The latter seems to be nearer the truth, particularly because he is now in an unknown land.

11. This is in continuation of the preceding. This suggestion is the first help rendered by him.

Rāma. Good, Vibhīṣaṇa, good. Well, so shall I do. [*Quickly getting up and with anger*]

If he yields me no passage, I shall quickly shrivel up his waters and mire with my arrows, scatter on the ground hundreds of dead fish, and suppress the roar of the waves. **(12)**

[*Then enter Varuṇa*]

Varuṇa. [*In haste*]

I have offended Nārāyaṇa, in the guise of a mortal, who has come here with a particular purpose. Afraid of the Lord's arrow which deprives the bodies of the enemies of the *Devas,* do I quickly resort to him for protection. **(13)**

[*Looking*] Here, here is the divine Lord!

In the garb of a human being and weilding *Cakra, Śārṅga* and *Gadā* (He is) come with a divine purpose, though He is himself the primordial cause. (14)

I bow to the divine Nārāyaṇa, the primordial cause of the Universe!

Lakṣmaṇa. [*Looking*] Ah, who can this be,

Who has his crown adorned with jewels, whose eyes are copper-coloured and beautiful, whose body is of the colour of the fresh night lotus and who diverts himself like the lordly elephant in rut, arising quickly from out of the heap of waters and suppressing the animate world, as it were, by his brilliance ?[12] (15)

Vibhīṣaṇa. Lord, he is the divine Varuṇa!

Rāma. Is he Varuṇa ? Divine Lord, Varuṇa, I bow to thee!

Varuṇa. O, Lord of the Devas, be pleased not to make obeisance to me. Or :

O, prince, whence is this anger ? Enough of your anger. Tell us quick, O best of men, what we may do. (16)

Rāma. Be pleased, O Lord, to grant us passage to cross over to Laṅkā.

12. This verse lends itself to beautiful acting at the hands of the *Cakyār.* This is true in a large measure of almost all the verses in this drama, an aspect which we have already noticed on a previous occasion.

Varuṇa. There is the passage. Proceed Sire. [*Disappeared*][13]

Rāma. What, the divine Varuṇa has disappeared! Vibhīṣaṇa, see, see the ocean devoid of all waves, thanks to the grace of the divine Varuṇa.

Vibhīṣaṇa. Lord, the ocean seems now divided into twain.

Rāma. Where is Hanūmān?

Hanūmān. Victory, my Lord.

Rāma. Hanūmān, go in front.

Hanūmān. As my lord orders.

[*All walk about*]

Rāma. [*Looking and wondering*] Beloved Lakṣmaṇa! Friend Vibhīṣaṇa! King Sugrīva! Friend Hanūmān, observe, observe you all the wondrous nature of the ocean! Here indeed!

> Here[14] is the dancing foam and there are the waves ruffled by the fish! Here is the cluster of conchshells, and there the dark blue waters! Here are the wreaths of waves and there the terrific sharks! Here the fearful whirlpool stands and there the calm waters! (17)

Thanks to grace of the divine Lord, we have crossed the ocean.

Hanūmān. Lord! Here, here is Laṅkā!

Rāma. [*Observing for long*] Alas[15] that the prosperity of the city of Rākṣasas should soon be annihilated!

> Caught in the gale of my noble arrows and burst into by the waves of the noble army of Vānaras, here (it) sinks like the unlucky canoe in the ocean, through the fault of the pilot Rāvaṇa! (18)

13. Notice the way in which Varuṇa and Rāma mutually treat each other. By the introduction of Varuṇa, the bridging of the ocean is avoided. This is a new idea, introduced by the author. Notice the same device is used in the *Bālacarita* also in Act I. (See the writer's translation of the same published in the last issue of the Mythic Society Journal).

14. Here is a beautiful description of the ocean as it stood parted affording a passage for Rāma.

15. Even Rāma feels sorry for the doom that is imminent for Laṅkā. And all that has come upon it through the indiscretion of its chief!

Sugrīva, here on the hillock on the shore encamp our army.

Sugrīva. As my Lord orders. Nīla, do so.

[*Entering*]

Nīla. As Your Majesty orders. [*Going out and entering*] Hail, my Lord! While the army was being encamped and the enclosures examined, two unknown forest-dwellers were caught from somewhere. We do not know what to do with them. May it please my Lord to issue orders.

Rāma. Bring them in quickly.

Nīla. As my lord orders.

[*Exit.*

[*Then enter Nīla with Śuka and Śaraṇa in the garb of monkeys in the custody of Vānaras with their hands cuffed.*]

Vānaras. Villains, speak, speak who you are.

Both. Lord, we are the dependents of the worthy Kumudaka.

Vānaras. Sire, they disguise themselves as the dependents of the worthy Kumudaka ?

Vibhīṣaṇa. [*Slowly scanning Śuka and Śāraṇa*]

These[16] are not of your army nor are they forest-dwellers ;
They are *Rākṣasas,* Śuka and Śāraṇa, sent by Rāvaṇa. (19)

Both. [*To themselves*] Alas! the prince has discovered us. [*Aloud*] Sire, seeing that the race of *Rākṣasas* is destined to go to ruin through the indiscretion of the king of Rākṣasas, we are without help and hence have come to you for safety in the guise of Vānaras.

Rāma. Friend, Vibhīṣaṇa, what dost thou think of it ?

Vibhīṣaṇa. Lord!

These are, O king, the favourite ministers of the lord of Rākṣasas, who will never leave off the lord of Laṅkā even when their life is at stake. (20)

Hence order, lord, such punishment as you think fit.[17]

16. Here we have the second great service done by Vibhīṣaṇa.

17. Note the speech. He suggests condign punishment for the spies. Have we here a suggestion that these ministers of Rāvaṇa are more responsible for the mischief than Rāvaṇa himself ?

Rāma. Not so, Vibhīṣaṇa, not so.

By punishing these two alone my cause does not gain, nor does Rāvaṇa's lose.[18] Therefore set them free. (21)

Lakṣmaṇa. If they should be set free, let them go in and see our encampment before they are let out.[19]

Rāma. Lakṣmaṇa, well hast thou said. Nīla, do so.

Nīla. As my lord orders.

Rāma. Or come here.

Both. Here are we.

Rāma. Tell the Rākṣasa chief these my words:

Invited for battle by himself by carrying off my wife, have I come for battle; but I do not see thee, though I am desirous of it.[20] (22)

Both. As our lord orders.

[*Exeunt.*

Rāma. Vibhīṣaṇa, we shall now review our army.

Vibhīṣaṇa. As my Lord orders.

Rāma. [*Wandering about and examining*] Ah! The sun is set. Here now:

Having reached the sunset mount, the sun has collected his rays and shines as if dyed red, like the golden globes on red shining trappings placed on the frontal globes of elephants.[21] (23)

[*Exeunt all.*

(End of Act IV.)

18. Here we have an excellent contrast to Vibhīṣaṇa. This is a beautiful statement pregnant with noble thoughts.

19. This is an interesting statement. Why should Lakṣmaṇa want that they should see their army before they depart? The idea possibly is that they would then have a correct estimate of the forces of Rāma, so that if they think so, they might persuade Rāvaṇa to make peace forthwith.

20. Note the message of Rāma. He is not afraid of Rāvaṇa; on the other hand, he suggests that Rāvaṇa is afraid, because as the host of the fight, he has made himself scarce.

21. See verse 22, Act II.

ACT V.

[*Then enter the Rākṣasa Chamberlain*]

Chamberlain. Who is there at the *Pearl Gate?*

[*Entering another Rākṣasa*]

Rākṣasa. Sire, here am I. What may I do?

Chamberlain. Go call Vidyutjihva—His Majesty orders.

Rākṣasa. Sire, so be it.

Chamberlain. Alas, indeed, when the fortunes of the Rākṣasa race are ebbing low, when His Majesty has lost everything, when his brave heroes have all been killed and when his very life is in danger, even now His Majesty does not regain the clearness of his intellect.[1] Who, indeed,

> will not appease him by returning his wife, even after seeing that he had crossed the ocean terrible on account of its dashing waves and fearful on account of the blue waters with their open mouthed sharks? (1)

And further,

> Rāghava has killed Prahasta and other heroes, headed by Kumbhakarṇa and now even Indrajit has gone for the fight. (2)

Even as such:

> the prince of heroes, but the slave of passion, he does not listen to the conciliatory words of his ministers and, desirous of fighting, does not return unto him the queen of the prince of Raghus. (3)

[*Entering*]

Vidyutjihva. Sire, are you doing well?

1. The speech is a very clear indication of how even the most immediate attendants of Rāvaṇa begin to take things. Rāvaṇa's continued perversion is steeping the kingdom in chaos and destruction and he does not listen to the good advice of his ministers. Rāma has entered the ramparts of Laṅkā, killed the foremost heroes, Prahasta, Kumbhakarṇa and even Indrajit has gone for the battle. Still the king continues to be the slave of passion and refuses to accept the only way for peace.

Chamberlain. Vidyutjihva, go, get two replicas of the heads of Rāma and Lakṣmaṇa—so His Majesty orders.[2]

Vidyutjihva. As His Majesty orders.

[*Exit.*

Chamberlain. And I shall be by the side of His Majesty.

[*Exit.*

Viṣkambhaka.

[*Then enter Sītā surrounded by hosts of Rākṣasīs*]

Sītā. What can, indeed, be this anxiety that sits on my heart which has been happy since the arrival of Rāma ? And I see bad omens. Yet my heart feels elated.[3] May Gods assure me peace !

[*Then enter Rāvaṇa*]

Rāvaṇa. Not so !

Here she goes leaving off my abode—lady Laṅkā[4] with the fresh and pure lotus in her hand, whom I captured when in the field of battle she left off Paulastya and quickly came to me.

Madam ! stop, stop ! Do not, do not go ! What sayst thou—Forsaking thee I am going to Rāma ? Accursed slave !

Then did I forcibly capture you in the abode of Vaiśravaṇa; I shall again capture thee by force, after having killed Rāghava in the field of battle. (5)

Enough of her. I shall now try to tempt Sītā. [*Acting lovelorn condition*] Ah, indeed, the incomparable strength of the flower-arrowed God ! For :

Having seen the face of Sītā, my eyes have forgotten sleep at night ; my body has become emaciated and pale, coveting the

2. The object of this is to tempt Sītā by making her believe that her lord was dead and that she was at his mercy.

3. Sītā feels something unpleasant is going to come ; at the same time she has an inkling that something good also is going to turn out. The former is an indication of the deceit that Rāvaṇa is about to play upon her, and the latter is an augury of the immediate victory of Rāma.

4. This is the guardian deity of Laṅkā, and her departure from Laṅkā is an indication of the destruction of Rāvaṇa and the victory of Rāma. Compare the exit of *Rājyaśrī* from Kaṁsa's court just on the eve of his destruction, as described in the *Bālacarita*. The goddess typifies the martial and material glory of Rāvaṇa, which he won by his brute strength.

pleasure of her embrace ; and Cupid has now made all pleasing things a source of pain to me. Alas, the conqueror of the three worlds, Rāvaṇa has now been conquered. (6)

[*Approaching*]

O Sītā, broad-eyed like the petal of the red lotus and the delight of my heart, cast off thy mind dwelling upon the man. Thy lord of heart accompanied by Lakṣmaṇa, thou wilt now see killed in battle by me. (7)

Sīta. Fie, the puny Rāvaṇa is a fool, who thinks he can ruffle the Mandara with his hands.[5]

[*Entering*]

Rākṣasa. May it please, Your Majesty !

Here are the heads of those two human princes, taken by your son, after killing them in battle, who wishes to please his father. (8)

Rāvaṇa. See, Sītā, see the heads of those two human beings !

Sītā. Ha ! My lord ! [*Fall swooning*].

Rāvaṇa.

Sītā, cast off thy love for the human being that is dead and accept, O fair-eyed maid, even now this great prosperity. (9)

Sītā. [*Reviving*] Alas, my lord ! Very bold is, indeed, my unfortunate self to be looking at this face similar unto the fresh and fragrant lotus and these broad eyes. Alas, my lord ! Where hast thou now gone, leaving me plunged in an ocean of misery ? Why do I not die ? Can it be that this is false ? Good sir, kill me also with that self same sword with which you made my lord unlike himself.

Rāvaṇa.

Now that wretched man with his brother Lakṣmaṇa has clearly been killed by Indrajit in battle, by whom wilt thou be released ? (10)

[*In the postscenium*]

5. Sītā pins all her confidence in the heroic valour of Rāma.

By Rāma, by Rāma.[6]

Sītā. Live long !

[*Entering*]

Rākṣasa. [*With fear*] By Rāma, by Rāma.

Rāvaṇa. What do you mean *by Rāma, by Rāma ?*

Rākṣasa. Be pleased, be pleased, Your Majesty ! On account of the haste due to the seriousness of the news, I forgot the propriety of the situation.

Rāvaṇa. Speak, speak what is done by that human ascetic ?

Rākṣasa. Your Majesty, be pleased to listen. By him, indeed,

by that strong and spirited hero, Rāghava, accompanied by Lakṣmaṇa, who has come to fight with the lord of Laṅkā, has your son been quickly killed in battle by sheer strength. (11)

Rāvaṇa. Ah ! Wicked man ! Coward in battle !

Indrajit killed in battle by that man, he by whom was conquered the *devas* headed by Indra and the Daityas, is it ?[7] (12)

Rākṣasa. Be pleased, Your Majesty, be pleased ! A falsehood is never uttered in Your Majesty's presence, and that with reference to the prince.

Rāvaṇa. Ah ! Beloved child Meghanāda ! [*Fall swooning*].

Rākṣasa. Your Majesty ! Revive, revive !

Rāvaṇa. [*Reviving*].

Ha, child ! Ha, terror of the world ! Ha, heroic warrior ! Ha, child ! Ha, conqueror of Indra and the terror of the enemies ! Ha, child ! Ha, hero ! Ha, devoted son ! Ha, warrior clever ! Ha, child ! Why dost thou go, leaving me here ? (13)

[*Fall into a swoon*]

6. Notice the words *rāmeṇa, rāmeṇa.* There will be greater propriety if the message that the soldier brings also begins with *rāmeṇa, rāmeṇa.* But as the text will have it has the word Rāghavena ; and consequently the interruption should have been *rāghavena, rāghavena.* Another explanation may also be suggested : The speaker first wanted to speak *rāmeṇendrajit hataḥ*, which in the confusion that followed he changed into another form.

7. Rāvaṇa seriously questions the truth of the information.

Rākṣasa. Fie upon that accurst fate which has brought Rāvaṇa, the conqueror of the three worlds, unto this state! Revive Your Majesty, revive.

Rāvaṇa. [*Reviving*] Enough now of Sītā, the cause of misery and the fickle Fortune which puts to nought the victory of all the three worlds. Ah! accursed Death! Thou art still afraid of death!

> Separated from his beloved Indrajit, the hard-hearted ten-headed king continues, alas, to live even now! (14)

[*Fall down in sorrow*]

Rākṣasa. List ye all, *Rākṣasa* heroes! Be vigilant all ye guards on duty at the harem, since the king is in this state.

[*In the postscenium*]

List ye all Rākṣasa heroes! O deserters who are flying away in fear, because the ocean-like army is in panic on account of the death of the leaders such as Prahasta, Nikumba, Kumbhakarṇa, and Indrajit! Such cowardly flight is unworthy of you, who have always won victories over the Devas and that when your master, the conqueror of the three worlds, far-famed for his twenty hands, yet stands in the fray!

Rāvaṇa. [*Listening, with great anger*] Go learn further news.

Rākṣasa. As Your Majesty orders. [*Going out and returning*] Hail, Your Majesty! Here is, indeed, Rāma:

> Rivalling you in hauteur, his eyes opened wide in pleasure and accompanied by the hosts of Vānaras, he has killed thy son in the forefront of the fray and now with his arrow strung to his bow, he is rushing at Laṅkā, as if to burn it down. (15)

Rāvaṇa. [*Rising up quickly with anger*] Where is he, where is he? [*Raising up the sword*]

> This sword in my hand, which is capable of breaking open the *Vajra*[8] and the frontal globes of elephants will now make thee a present to my anger. Let the *Devas* protect thee. Stop, stop, puny mortal: where dost go? (16)

Rākṣasa. Enough, Your Majesty, enough of your rashness.[9]

8. It may also be interpreted to mean the *Vajra*-like frontal globes of the elephants.

9. Rāvaṇa is rushing at Rāma. He is not fully equipped for that; and secondly, what is worse, he is not in a fit mental condition for fight. Hence the Rākṣasa prevents him.

Sītā. Death shall soon overtake Rāvaṇa who does such unpleasant, ignoble things unprovoked ! [10]

Rāvaṇa. On her account many have been killed—brothers, sons, and friends of mine. I shall, therefore, cut open her inimical heart and then adorned with her entrails I shall with the lightning of my sword kill him along with his brother and the hosts of Vānaras.

Rākṣasa. Be pleased, Your Majesty, be pleased ! Enough, enough now of thy continuous and useless exertions against the strong insult of thy enemy. And necessarily a woman should not be killed.[11]

Rāvaṇa. Well, then, bring my chariot.

Rākṣasa. As Your Majesty orders. [*Going out and returning*] Hail, Your Majesty ! Here is the chariot.[12]

Rāvaṇa. [*Entering the chariot*]

Pierced by the sharp arrows from my bow and killed thou
wilt soon see thy Rāghava surrounded by the *devas*.[13] **(17)**

Sīta. Ah ! O Gods ! If I follow my lord consistently with my family tradition and purity, then may my lord be victorious !

[*Exeunt.*

(End of Act V)

10. Sītā's curse infuriates Rāvaṇa and so he turns towards her.

11. The soldier means to suggest that thus giving way to passion does not lead him any where.

12. This is an interesting feature. The question deserves to be asked whether an actual chariot is to be present on the stage. We are inclined to think the coming of the chariot and the getting into it are to be acted by the actor and not actually represented.

13. This may be interpreted in two ways: "though surrounded by the *devas* thou wilt see thy Rāghava killed by my arrows"; killed by my arrows, thou wilt see thy Rāghava surrounded by *devas*.

University Notes

CONVOCATION

The fifth Convocation of the University was held on Thursday the 31st October, 1935, His Excellency the Governor of Madras, the Chancellor of the University, presiding. The Address to the Graduates was delivered by Amin-ul-Mulk Sir Mirza Mahomed Ismail Kt., C.I.E., O.B.E., Dewan of Mysore.

FOUNDER'S DAY

The Sixth Founder's Day was celebrated on the 12th October, 1935 under the presidency of the Right Hon'ble V. S. Srinivasa Sastriar, P.C., C.H., LL.D., Vice-Chancellor of the University. Captain Abdul Hamid, Principal, Government Mahommedan College, Madras delivered the Address.

SPECIAL LECTURES

The following special lectures were delivered since the last issue:

H. Parameswaran Esq., M.A., Ph.D., Professor of Physics, Presidency College, Madras.	3 lectures on 'Vacuum Technology'.
P. Sambamurthi Esq., B.A., B.L., Advocate, Madras.	4 lectures on 'Musical Compositions in South Indian Music, their origin and development'.
" " "	Musical Concert.
S. Chowla Esq., Ph.D. (Cantab), Reader in Mathematics, Andhra University.	3 lectures on 'Additive Theory of Numbers'.
S. K. De Esq., M.A., D.Litt. (Lond), University of Dacca.	3 lectures on 'Some aspects connected with Literary Criticism in Samskrit'.

STAFF

The Syndicate has nominated Dr. S. Ramachandra Rao, M.A., Ph.D., F. Inst. P., Professor of Physics, to the Council of the Indian Institute of Science, Bangalore.

Dr. S. N. Chakravarti, M.Sc., D.PHIL. (Oxon), Professor of Chemistry, was elected a Fellow of the National Institute of Sciences, India.

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M. Swaminathan, M.Sc., has been appointed research assistant in the Medical Research Institute, Coonoor and K. R. Ramakutty Menon research assistant to the Rubber-Latex Research Officer, Malay States.

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The Government of Madras has appointed Dr. B. V. Narayanaswami Naidu, M.A., B.COM., PH.D., BAR-AT-LAW, Professor of Economics, a member of the Sub-Committee of the Provincial Economic Council.

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Professor M. S. Sundaram, M.A., B.LITT. (Oxon), Professor of English, has been invited by the Madras University to deliver a course of six lectures.

PUBLICATIONS

The following books were published by the Staff of the University recently :—

Mr. B. N. Krishnamurthi Sarma.	Madhvacarya : Catus-Sutri Bhashya of Sri Madhvacarya (including the Iksatyadhikarana).
Mr. K. Rama Pisharoti.	1. " Uttarāmacaritakāvya ". 2. " Śrī Śṛṅgāralīlākilaka bhāna ".
Professor C. S. Srinivasachariar Avl.	Major Evans Bell : Empire in India Letters from Madras and other places edited with bibliography.

MISCELLANEOUS

Mr. S. Natarajan, B.A. (Hons.), was awarded the M.LITT. degree for his thesis.

VICE-CHANCELLOR'S PORTRAIT

The portrait of our Vice-Chancellor Rt. Hon. V. S. Srinivasa Sastri was unveiled by His Excellency the Governor of Madras, on Thursday, the 31st October, 1935. The portrait was a gift of our Pro-Chancellor, the Hon'ble Dr. Raja Sir S. R. M. Annamalai Chettiar Kt., LL.D., of

Chettinad, and was painted by the celebrated Bombay artist, Mr. C. Nageswara Rao.

In presenting the portrait, the Hon'ble Dr. Rajah Sir Annamalai Chettiar Kt., LL.D., of Chettinad, said :

"I am most grateful to Your Excellency for your kind acceptance of my invitation to unveil the portrait of the Rt. Hon'ble V. S. Srinivasa Sastri. When this University came into being about six years ago, he was appointed the first Vice-Chancellor and I am sure you will agree that no better choice could have been made. It is not always that one gets what one desires and the University had to deprive itself of his kind care and wise guidance in its infant stage as he was called away to East Africa on an Imperial mission. Thanks to Your Excellency's ready and cheerful assistance, he has now been able to come back to his first love and take up again the task of preparing, by precept and example, the youth of the country for right citizenship.

It is well known to those who know him intimately that the Rt. Hon'ble Sastriar is animated in all his public activities by the glorious vision of a United India as "a great and honoured partner among the British Commonwealth of Nations". It is my hope that the inspiring example of a practical life of service and sacrifice will not fail to create in the minds of the young men here a partiality for the ideal of service of which he is such an embodiment, suited of course, to the needs and conditions of modern life. A life nobly lived such as his will surely call out what is noble in those who come into daily contact with him.

I do not now propose to make a recital of the great qualities of our distinguished friend or enlarge upon his activities and achievements in the public life of our country. Suffice it to say that he has never yet hesitated to obey the dictates of duty, whatever be his physical ailments. He has served India, whenever called upon to do so, truly and nobly as becomes a disciple of his master and a servant of India and raised India's national self-respect high in the esteem of the nations by his intellectual vigour, sweet reasonableness and superb eloquence. Sane in outlook, sober in expression, simple in habits, selfless in service, sympathetic to a fault, absolutely incapable of harbouring feelings of hatred, firm as a rock where his convictions are concerned, it is no wonder he has been able to earn and retain the respect and regard even of his political opponents.

From Mr. Sastri the Teacher to the Rt. Hon'ble Sastri, the Ambassador of the Empire, Privy Councillor and Member of the Order of the Companions of Honour to His Majesty, it is easy to trace the workings

of an alert mind, eager and ready to seize opportunities as they come and utilise them for the advancement of the country in every way possible. Whether in the legislatures of the country, or in the various conferences of the Empire, or at the League of Nations, he impressed every one with his intellectual abilities, quiet dignity and indefinable charm. His is a dedicated life and his is the supreme satisfaction that comes from duty conscientiously discharged. No man can desire more.

This portrait, which Your Excellency is to unveil now, will serve to remind generations of students passing through the portals of this University of the greatness of Mr. Sastri and infuse into them what may be called the Sastri spirit—the spirit of renunciation and service of the Sanyasin of old adapted to modern life.

Let me take this opportunity of thanking Mr. C. Nageswara Rao of the Andhra Chitra Sala, Bombay, who has painted the portrait. I hope you will agree that it is an impressive and faithful likeness of Mr. Sastri.

It is with great pleasure that I now request Your Excellency to unveil the portrait of the Rt. Hon'ble V. S. Srinivasa Sastri."

In unveiling the portrait, His Excellency the Chancellor observed:

"It is indeed a pleasure to me, gentlemen, to have been given the opportunity of unveiling this portrait of the Rt. Hon'ble Srinivasa Sastri today. My only regret is that my personal acquaintance with him is so brief that I cannot, from a more intimate knowledge, do better justice to what I regard as a highly privileged occasion. It is not often, I suppose, that one meets and makes a friend and proceeds to the unveiling of his portrait within the hour, but still less often that one can approach so pleasant a duty in the assured knowledge that that friend is worth going far to make and one to whom to do honour cannot fail to be a delight. For who is there who does not know India's Srinivasa Sastri? or who is unaware of his richness in statesmanship, in eloquence, in erudition and in character?

I do not feel that it is for me to attempt a chronicle of the events of Mr. Srinivasa Sastri's public life—that I can safely leave to writers of modern history. Nor do I think that there is any need to enlarge upon his personal qualities, for I fancy that a personality such as his could not have failed to impress each one of you deeply, however short the time he has been amongst you. After long years of devoted service to India's interests at home and abroad, Mr. Sastri has returned to the sphere in which he first laid the foundation of his career, and I would only say that there are no hands to which I would more gladly entrust

the task of guiding the education of the youth of this country, and no example of which I would more earnestly ask you to follow. Of the many services which my Right Honourable friend has performed in the interests of his countrymen, I regard none as more important than this which he has now undertaken: for never have such opportunities been presented to the youth of India as those which open before you now, and what higher responsibility can there be than the training of youth to seize those opportunities in the spirit of service and self-sacrifice and so ensure that this great country will take her rightful place in the brotherhood of the nations of the world. That is the goal which Mr. Sastri has ever kept before him, and the responsibility is one which no one is better fitted to bear than he.

I have great pleasure, gentlemen, in unveiling this portrait of our Vice-Chancellor."

Reviews

Economic outlook in Federal India. By C. N. Vakil. The Delhi University Publications, No. 4. University of Delhi.

Prof. C. N. Vakil has brought out in book form his Sir Kikabhai Premchand Readership Lectures delivered at the Delhi University. The book consists of ten Chapters dealing with such topics as: The State and Economic Life; The Indian States; Financial resources; Productive activities in urban and rural areas and Transport.

The author has made an admirable survey of the great economic changes that are likely to arise in this country under the new constitutional proposals.

At the very outset Prof. Vakil points out the importance of realizing the interdependence of politics and economics and explains how a fair understanding of the constitutional proposals is impossible without a knowledge of the economic needs of India.

In the second, third and fourth chapters, Prof. Vakil gives a brief outline of the new proposals and points out that these will involve additional expenditure of about eight crores of rupees. It has been computed that the enlargement of the legislatures, provincial and central, the establishment of the Supreme Court and other incidental charges would result in an additional expense of 2 crores on administration; subventions have to be given to the deficit provinces of Sind and Orissa amounting to more than a crore while the separation of Burma would involve a net loss of revenue to the tune of five crores. On the whole 8 crores of rupees have to be found for working the reforms. The problem of Federal Finance bristles with many difficulties since additional taxation cannot bring much additional revenue. So the author condemns the new proposals as extremely unsatisfactory, since they involve an increase in the tax-burden of the masses without in any way increasing or developing nation-building services or rural and urban productive activities. The new sources suggested do not provide sufficient scope for expansion.

It is contended that too heavy a price is paid for getting the Princes into the Federation and that the economic control of the Federal Government over the Indian States is not very effective. Another cause of complaint is the unequal way in which Central and Provincial resources are divided.

Prof. Vakil argues that the industrial and commercial safeguards give statutory form to the main ideas underlying the Ottawa Pact and that they run counter to all ideas of fiscal autonomy since under them

adequate protection of Indian industry against British competition is practically impossible. The provisions regarding the statutory Railway Board and the Reserve Bank of India are in the nature of limitations to the powers of the Indian legislature in these matters and seem to be calculated to hand over the reins of control to an extraneous authority.

In conclusion, Prof. Vakil opines that the provisions in the White Paper serve more to hinder rather than help the growth of Indian Industries and Commerce.

Opinion, however, is by no means unanimous on this point.

B. V. N

Satyāgrahagīta.—By Kshama Row (Sanskrit Text). Paris Librairie D'amerique et D'orient Adrieu Maisonneuve, 5, rue de Tournon. (vi) 1932 (pages 134).

Kshama Row's Satyāgrahagītā in 659 *anuṣṭup* verses is the first work in Sanskrit on an important subject of current Indian Politics—the Satyāgraha Movement. Her comprehensive account begins with the Mahatmaji's work in South Africa, but it deals mainly with that great political movement in India. The descriptions of the *Punjab Tragedy,* the *Mopalah Rebellion,* the *Dandi March* and the *Sholapur accident,* etc., bespeak her power of *epic-narration.* She describes in detail the *duties of the satyagrahins* according to Mahatma Gandhi. Throughout the work she shows a wonderful command of an easy-flowing, simple and lucid style in the popular *anuṣṭup* metre.

It is regrettable, however, that a few grammatical mistakes have crept into this work. The words *dāsyabhāva* (pp. 8-5, 45-4, 55-9), *Janahāsya* (p. 11-6), śiśupremī (p. 24-10), yodhyatām (p. 29-10) should read respectively as *dāsabhāva, Janahāsa, śiśupremā* and *yudhyantām.* The expression *amiṣitām* (p. 39-8) does not convey any sense but it may be substituted by *āmiṣatām.* The word *'niṣṭhatām'* ought to be used as a component element of a *bahuvrīhi* compound, but in non-compound uses, it should read as *niṣṭhām.* The use of the word *vyāpāra* (p. 60-4) in the sense of *trade* is not correct.

The division of this work into 18 adhyāyas (chapters) seems to be the obvious reason for its title *Gītā.* We heartily congratulate the authoress on her very attractive performance. V. A. R.

Foundations of Chemistry. By K. Suryanarayana, Kallakuri Brothers, Madras. pp. 703, 1935. Price Rs. 5-8.

There are no doubt very many good text-books on Chemistry that could be prescribed for the Intermediate Classes but as the author points out in his Foreword "no suitable text-book has so far been published

which would exactly meet the requirements of candidates preparing for the Intermediate Examinations of Indian Universities"; and Mr. Suryanarayana has supplied this long felt want by his "Foundations of Chemistry" for which he deserves the gratitude of the students and teachers of the Intermediate Classes. The book impresses one of the fact that the author has had considerable experience with the students of the Intermediate Classes and the exposition is lucid, simple and arresting. The author has cleverly blended in one book the theoretical and practical portions in Chemistry. Almost every chapter opens with clear instructions for laboratory work, thus giving the due and necessary prominence to the practical side of the problem; and here the author has happily adopted the very good method of Alexander Smith adding a number of interesting and suggestive questions regarding the course of chemical reactions. It is a refreshing feature of the book that an attempt is made to introduce the student to qualitative analysis. The method suggested for the detection of acidic radicals is very good and comprehensive. But with regard to the detection of metallic radicals, though so far as the individual metals are concerned, the tests are exhaustive and comprehensive, it would have been very much better if the author has strictly followed the usual scheme of systematic examination of metallic radicals as in Caven. A number of problems have been worked out to illustrate the various laws in Chemistry. Another happy and useful feature of the book is the vast number of interesting and typical questions culled from the various University examination papers, which the author has added at the end of every chapter.

It would have greatly enhanced the value of the book if the author had not confined himself rigorously to the syllabus of the Intermediate standard but had given some modern ideas regarding atomic structure without stopping with Dalton's atom, had mentioned about the recent discovery of the oxides of fluorine and of the hydride of bismuth, had discussed the reasons for assigning the formula $Ca<\begin{matrix}Cl\\OCl\end{matrix}$ for bleaching powder, had written about the modern manufacturing processes of some of the important chemicals a little more in detail with suitable diagrams of industrial plants and had treated the historical portion more elaborately. It is confidently hoped that the author would incorporate these things in the next edition of the book.

The book under review deserves and is bound to be widely popular and to run into many editions. The author is to be congratulated on the excellent get up of the book, neat and illustrative diagrams dispersed throughout and the novel and original method of presentation of the subject e.g. the preparation of metals and their compounds. In short, in his book "Foundations of Chemistry", Mr. Suryanarayana has

achieved for the student of the Intermediate Classes what Fritz Ephraim has done in his splendid modern text-book of Inorganic Chemistry for the advanced students in Chemistry. A. V. NATHAN.

Kathāpañcakam. By Mrs. Kshama Rao. Published by Sahakari Granthakar, Nawakal Wadi, Girgaon, Bombay. Price Re. 1.

As a form of entertainment and a means of moral instruction, the short story is to be classed among the oldest things of the world. The *Genesis*, the *Iliad*, the *Odyssey* and the *Edda* contain some of the finest stories ever written. But as a medium for the deliberate exercise of literary art, the short story is the youngest of the literary forms. The tremendous multiplication of magazines in the last century pushed the English short story to the forefront, for, here the magazine discovered a literary form which provides at once scope for the exercise of literary craftsmanship and popular entertainment. In the last quarter of the last century, the English short story was but an infant; but now it may be said to have entered upon the stage of vigorous adolescence. To magazines in the Indian vernaculars there is no end. The spate which began a few years ago continues unabated. As in England, the periodical literature has helped to create and nourish the short story in the vernaculars of this country. While there are any number of attractive tales and fables in Sanskrit, the short story, as a definite form of creative art, is comparatively unknown in Sanskrit literature. The aim of Mrs. Kshama Rao in writing this book is to introduce the briefer kind of fiction into this language; and she has done invaluable service as a pioneer of the short story in Sanskrit literature. All the stories in this collection—Bālikodvāhasaṁkatam, Girijah Pratijñā, Harisimhaḥ, Dantakeyūram and Asūyinī—are eminently readable. Each one of them throws a flash light on life at some one dramatic situation. The writer's insight into the main phases of human emotions and her mastery over the Sanskrit language are remarkable. The style is simple, elegant and attractive. Save for a few grammatical slips here and there, the language is throughout dignified. Mrs. Kshama Rao shows rare powers of effective tale-telling. She is able to capture and retain the reader's attention throughout and finishes the story at the precise moment when the reader's interest begins to drop. Effective characterisation, utmost economy of words and scrupulous avoidance of irrelevant details are some of the outstanding features of these stories. The descriptions are vivid and the narrative swift and never found to dawdle. Bālikodvāhasaṁkatam and Dantakeyūram are the saddest and perhaps the most beautiful stories in this collection. The temptation to use the story for the purpose of moralising is hard to resist. But the master craftsman is able to express and illustrate his criticism of life artistically and

powerfully and without obtruding it upon the reader's attention. Four at least of the five stories in this book have a more serious aim than that of providing entertainment. In the manner of the old time story, they end with the announcement of the moral in plain terms. What Hugh Walker calls 'the artistic indecency in the exposure of the moral' is a defect of some of these stories. But the deficiencies are those of a pioneer. Here is an excellent performance of which anybody may well be proud. Mrs. Kshama Rao has opened up new vistas for the short story writer and many may follow in her path. R. R.

The Sāṅkhya-Kārikā of Īśvara Kṛṣṇa. Edited and translated by Mr. S. S. Suryanarayana Sastri, Department of Philosophy, Madras University. Second edition—revised. University of Madras, 1935. Price Rs. 2 or 4sh.

The *Sāṅkhya-Kārikā* of Īśvara Kṛṣṇa is the earliest authoritative work on the classical Sāṅkhya. It cannot be assigned to a period later than the 5th century A.D., because, about the middle of the sixth century A.D., Paramārtha translated the *Sāṅkhya-Kārikā*, along with a commentary on it into Chinese under the title 'the Golden Seventy Discourse'. This commentary cannot be identified with *Māṭhara Vṛtti*, as is sometimes done. As it presents a concise and lucid exposition of the Sāṅkhya doctrines, the *Sāṅkhya-Kārikā* has been characterised as 'the pearl of the whole scholastic literature of India'. *Sāṅkhya-saptati* is another name for this work, because it contains seventy verses. To meet the needs of University students, Mr. S. S. Suryanarayana Sastri published in 1930 an edition of this book with English translation, transliteration and notes discussing the problems arising from each verse of the text. Within five years after its first publication, there arose a demand for a fresh edition. This revised edition, while keeping to the general plan of the first, furnishes further information taken from a comparatively recent but hitherto unpublished commentary on the Sāṅkhya-Kārikā called *Sāṅkhya-taru-vasantaḥ*. The main aim of Muḍumba Narasiṃhasvāmin, the author of this commentary, is to explain away the differences, on the doctrinal side, of the Sāṅkhya and the Vedānta and to bring the former closer to the Vedānta. Mr. Suryanarayana Sastri's translation is eminently readable and faithful to the original. The Introduction containing a critical exposition of the Sāṅkhya teaching, and discussions on several problems of interest, such as, the relation of the Sāṅkhya to the Upaniṣads and Buddhism and the correspondence between the Sāṅkhya and the modern scientific view of evolution, and the tabular statements indicating the evolution of prakṛti and the creation of the intellect, and the Verse Index have greatly enhanced the usefulness of this book. R. R.